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## Warranty Policy Overview

The purpose of Espar warranty is to ensure that the end-user (customer) of Espar Products is satisfied with the quality of their purchase. In order to provide customer satisfaction, Espar stands behind its products as they leave Espar's control.

This Espar Warranty Manual and all policies and procedures within it, supersedes all previous warranty manual revisions. It will remain valid until a new manual is released or until further notice. Any requests for dealer labour rate increases must be made in writing and forwarded to the Warranty Department. Approval or denial will be decided upon review with the decision communicated back to the dealer.

While the warranty is applicable to the end-user, it is administered and performed only through the Espar network of trained dealers and distributors.

To this end, Espar will follow the procedures outlined in this manual in the processing and administration of warranty claims.

For specific information please refer to the Espar Limited Warranty section as outlined in Appendix A of this manual.

## Warranty Period

The warranty period of a heater is specified in years or in heater operating hours, beginning from the date of installation, whichever is reached first. Refer to "What IS and IS NOT covered under Warranty" on Page 5 of this manual. If the installation date is not made known to Espar by registering the heater within thirty (30) days of installation, or by providing proof of installation date at time of warranty claim (i.e. installation invoice or 'in-service' document), the warranty period will begin on the date of shipment from Espar's North American warehouse.

### IMPORTANT NOTE:

- Heaters must be installed within one (1) year of purchase date to be eligible for warranty.
- Installation invoices or 'in-service' documents provided to Espar must include applicable model number(s) and serial number(s) of the heater(s) installed.
- Heaters meant for truck applications should not be transferred / installed for marine applications.
- Heater installation is recommended to be done by the service provider who have been trained and certified by Espar trainers.
- Heater self installation by customer is recommended to be inspected and certified by trained service provider to prevent denial of warranty due to installation issue.

## Replacement Parts

All replacement parts are warranted to be free from defects in material and / or workmanship for ninety (90) days from the date of sale or the remainder of the original warranty period on the heater, whichever is greater.

## Special Tools

Special tools (e.g. ISO Adapter, Fault Code Retrieval Device, EDiTH Adapters, etc.) are warranted to be free from defects in material and / or workmanship for twelve (12) months from the date of sale from Espar's North American warehouse.

Warranty periods by model:

### Air Heaters

Heater Model	Standard Warranty Period
AIRTRONIC 2	2 years or 2,000 hours*
AIRTRONIC 4	2 years or 2,000 hours*
AIRTRONIC 5	2 years or 2,000 hours*
B1LC Compact	2 years or 2,000 hours*
B/D3LC Compact	2 years or 2,000 hours*
B/D5LC	1 year or 1,000 hours*
D8LC	1 year or 1,000 hours*

### Coolant Heaters

Heater Model	Standard Warranty Period
B/D5W	2 years or 2,000 hours*
HYDRONIC 4	2 years or 2,000 hours*
HYDRONIC 5 (S/SC/E)	2 years or 2,000 hours*
HYDRONIC 10	1 year or 1,000 hours*
HYDRONIC MII series (M8/M10/M12)	2 years or 1,500 hours*
HYDRONIC 16/24/30/35	1 year or 1,000 hours*
HYDRONIC LII series (L16/L24/L30/L35)	1 year or 1,000 hours*

\* which ever is reached first

## What IS and IS NOT Covered Under Warranty

The purpose of Espar Warranty is to provide the end user (customer) of Espar heaters with protection from defects in material and workmanship.

### **A. Items covered under warranty include:**

#### **PARTS**

1. Timers, thermostats, mini-controllers or other electronic temperature control products provided by Espar
2. Electronic control units (ECU's)
3. Glow pins
4. Fuel metering pumps
5. Heat exchangers and / or combustion chambers (burner)
6. Air blowers
7. Coolant pumps
8. Flame, overheat and temperature sensors
9. O-rings, gaskets, seals (excluding HYDRONIC D5SC coolant pump and sensor O-rings)
10. Wire harnesses (only those provided by Espar are warranted) but prior authorization is required from Espar's Warranty Department

#### **SERVICE**

1. Shipping costs associated with the authorized return of warranted parts from the Espar Dealer / Distributor to Espar (only for shipments that contain parts specifically requested by Espar).
2. To receive travel time to repair heaters installed on boats and / or off-highway heavy equipment, the travel section must be completed on the warranty claim for consideration of payment. Note that maximum limits do apply.

### **B. Items NOT covered under warranty include but are not limited to:**

#### **PARTS**

1. Heaters no longer covered within terms of warranty
2. Wear and tear of parts, including:
  - a) Glow plugs
  - b) O-rings (HYDRONIC D5SC coolant pump and sensor O-rings)
  - c) Clamps, clips, brackets
  - d) Batteries
  - e) Coolant
  - f) Atomizer screens
  - g) Fuel system components (e.g. fuel pick-up pipe, fuel line, filters, etc.)
  - h) Fuses
  - i) Connectors, terminals and screws
  - j) Lamp bulbs
  - k) Air ducting, intake and exhaust tubing
3. Parts that malfunction due to improper installation, which may result from:
  - a) Inadequate air or coolant flow
  - b) Inadequate or restricted fuel flow
  - c) Inadequate voltage due to improper wiring upon installation
  - d) Inadequate protection from shock or vibration
  - e) Inadequate protection from road spray or weather conditions
4. Components that have been opened, tampered with or modified by parties other than Espar
5. Using non-standard parts or parts not approved by Espar, in the installation

6. Diagnosis or repairs completed when cause of the problem or failure is due to electrical system problems outside the heater, excessive engine debris or empty fuel tanks or poor quality fuel.
7. Deterioration due to normal wear, corrosion, abuse, damage, accident, improper storage or operation.
8. Costs incurred through an incorrect diagnosis, poor performance of the repair. This also applies to corrections of installations that did not meet Espar specifications. In these cases the costs incurred are to be charged to original installer.

## SERVICE

1. Travel time by dealers / distributors traveling within their assigned territories except as noted in Service section A, above, item #2.
2. Shipping costs associated with the unauthorized return of warranted parts from the Espar Dealer / Distributor to Espar Products.
3. Espar will not pay for return shipping costs to the Dealer / Distributor where parts are deemed acceptable after testing.

Normal periodic heater maintenance (as outlined in each heater manual) shall be the responsibility of the owner of the heater. As a general guideline, the heater should be run a minimum of once per month for fifteen (15) minutes all year round.

## Heater Identification Plate

The heater identification plate provides all the heater information, which is required when filing a warranty claim, such as heater model type, part number and serial number. This information must be included on every warranty claim, so be sure to record it before any warranty repair work is completed. Claims without serial numbers are subject to rejection.

Model Name: AIRTRONIC, HYDRONIC or three or four digit heater model name (e.g. D5LC)

In a three or four digit name, the following explanation may be helpful in understanding the heater model name:

First digit indicates fuel type ..... Alpha (D = diesel, B = gasoline)  
 Second digit indicates kilowatt heat output ..... Numeric (5 = 5 kilowatt, etc.)  
 Third digit indicates type of heater ..... Alpha (L = air heater, W = coolant heater)  
 Fourth digit provides further designation ..... Alpha (C = comfort, etc.)



..... Heater model name  
 ..... Heater model name  
 ..... Heater model part number  
 ..... Heater serial number  
 ..... Fuel type  
 ..... Electrical power consumption  
 ..... Maximum heat output  
 ..... Operating pressure

**NOTE:** It is strongly advised that during the heater installation the duplicate heater serial number label is affixed in a clearly visible and easily accessible location, such as on the driver door.



Duplicate heater identification plate  
or "serial number label"

## Warranty Registration

A blue warranty registration notification is shipped with every heater. Please note there are several important reasons why the warranty should be registered.

If a warranty registration is not received by Espar, the heater warranty period begins on the date the heater is shipped from Espar's North American warehouse. When the warranty is properly registered, Espar can identify the date on which the heater was installed and / or put into service and therefore begin the heater warranty period on that date. This effectively extends the warranty period of the heater to the maximum time available.

Registering the warranty also serves the purpose of identifying the purchaser and original installation of the heater since the warranty is non-transferable.

It also identifies the installing dealer so, if required and if necessary, any installation related problems could be brought to the attention of the installer.

Espar recommends all dealers / distributors register their customers' warranty within thirty (30) days of installation by completing and submitting registration form via the internet on Espar's website, [www.espar.com](http://www.espar.com). Click on the 'Warranty' link, then on the 'Warranty Registration Coupon' link to access the warranty registration.

Again, it is in the customer's best interest that the warranty be registered to receive the full warranty period allotted for their particular heater.

### **IMPORTANT NOTE:**

**If the warranty registration is not completed and received by Espar within thirty (30) days of installation the heater warranty period begins from the date the heater is shipped from Espar's warehouse, unless other information is provided to Espar, upon request.**



## Dealer Requirements to Perform Warranty Repairs

To conduct warranty repairs and submit warranty claims, the following criteria must be met:

1. Possess and maintain certified technician's who have undergone Espar technical training (installation, diagnosing and troubleshooting) and warranty training.
2. Possess all tools required to install, maintain and service Espar products as outlined in the 'Tools and Equipment' section of Espar manuals.
3. Possess at all times at least one copy of the current Espar Warranty Manual and all applicable heater service manuals. The latest Espar Warranty Manual is available by downloading directly from Espar's website, [www.espar.com](http://www.espar.com).
4. Maintain sufficient inventory of parts, based on heater type serviced.

In order to access the Espar on-line Warranty Claim Form, at [www.espar.com](http://www.espar.com), and to submit a warranty claim, Espar will provide a user name and password after all required information has been received. At that time, the hourly labor rate is agreed upon and it is frozen for one year. Espar's Warranty Administrators must be notified in writing of a labor rate increase. Approval or denial will be decided upon review and a decision will be communicated back to the dealer by the Warranty Administrator in e-mail format.

## Procedure Prior to Starting Warranty Work

As a member of the Espar distribution organization, you are expected to stand behind your work. This includes properly specifying and installing heaters and instructing your customers on the proper operation and maintenance of the heater and all related components or accessories. All heater technical manuals are available for download at Espar's website, [www.espar.com](http://www.espar.com).

Before starting any warranty repairs on the heater, please check, as appropriate and as suggested in the 'Technician's Checklist', Appendix E:

1. Electrical System
  - a) Are connections tight and free of corrosion?
  - b) Has proper gauge wiring been used for the length and amperage requirements for that wiring?
  - c) Have any fuses or circuit breakers been activated?
  - d) Is power taken directly from the batteries and ground to the batteries?
2. Fuel System
  - a) Have proper diameter fuel lines been used?
  - b) Have proper length fuel lines been used?
  - c) Has a proper connection to the fuel supply been made?
  - d) Is the fuel flowing or has it gelled?
  - e) Are there restrictions in the fuel line?
  - f) Is the fuel metering pump properly aligned?
  - g) Is the fuel filter clogged?
  - h) Has an Espar fuel pick-up pipe been used and is it the proper length and diameter?
3. Coolant Flow or Air Flow System
  - a) Are there any obstructions in the system?
  - b) Is the heater system too large or small for the application?
  - c) Has proper coolant hose size or ducting size been used?
4. Total operating hours to-date (with EDiTH diagnostics).

## Procedure for Performing Warranty Work

As a member of the Espar distribution organization you are trained in the installation, troubleshooting and repair of Espar heaters and systems and you have all of the necessary tools required to properly diagnose heater functions.

Technical publications such as Technical Descriptions, Troubleshooting Guides and Parts Manuals are available by downloading directly from Espar's website, [www.espar.com](http://www.espar.com). Technical circulars are issued periodically from Espar's Technical Department. It is important to refer to current publications while working on a heater. Special tools and test equipment are available for some heaters. Refer to the Tools and Equipment section. If you have any questions, contact Espar's Technical Department.

Once you have examined the heater for system or installation problems, as set forth in the preceding section and have determined that warranty work must be performed, follow the technical publications and use your training and experience to correct the cause of the problem.

### **IMPORTANT NOTE:**

**Always ensure that the root cause of the problem is corrected, rather than simply correcting the symptoms of the problem. For example: if a heater has overheated several consecutive times and has been locked out (F15), do not simply reset the heater with the diagnostic unit. Locate the source of the overheat problem and correct it.**

Any part replaced under warranty must be tested as per the current heater manuals test procedures to confirm that it is defective before it is claimed. Parts that should be tested are, but not limited to:

- a) Glow pins
- b) Control units
- c) Fuel metering pumps
- d) Temperature, flame and overheat sensors
- e) Combustion air blowers
- f) Coolant pumps
- g) Thermostats and timers
- h) Mini-controllers
- i) Wire harnesses

Espar assumes that the technical repair is carried out without fault and economically, (i.e. replacement of only those parts that are defective, settlement of only those labor costs incurred) according to the Flat Rate Labor Guide. Duplicate expenses, for example, two journeys because the spare part was not available, cannot be claimed.

## Procedure for Submitting Warranty Claims

### IMPORTANT NOTE:

**After the warranty work has been performed and the heater is operating properly and it has been determined that the problems were truly warranty problems and not due to improper application specification, installation or operation; the procedure is as follows:**

1. **Affix the Espar Warranty Tag to all claimed parts.** Fill out all the information indicated on the tag: Dealer Stamp, Dealer Claim Number, Espar Part Number, Part Description, Heater Name, Heater Part Number, Serial Number, Description of Defect and WE#. Each part must be held for thirty (30) days after the claim has been filed. Espar reserves the right to inspect any or all parts, upon request. If any of these parts are not requested back by Espar after the thirty (30) day period, the part may be disposed of.

Supplies of Warranty Tags (Appendix B) are supplied by Espar upon request and are distributed through the main Espar authorized service branch.

### IMPORTANT NOTE:

**Should Espar request parts back, a WE# will be issued to the dealer. It is important to receive all requested parts back as warranty claims are reviewed either at Espar or its parent company, Eberspaecher. It is imperative that defective parts are available for testing and evaluation.**

2. A warranty claim **must be** submitted within thirty (30) days of the date of repair.

### IMPORTANT NOTE:

**If a new part is determined to be defective within ninety (90) days after installation, a warranty claim should be filed as usual and the description of the problem should clearly state '90 day warranty'. This coverage will even apply should the heater be out of warranty however, no handling, labor or travel will apply in this case.**

3. To file a warranty claim go to Espar' website, [www.espar.com](http://www.espar.com) and click the 'Warranty' link and then click on the 'Warranty Claim' link. Only authorized Espar dealers can submit warranty claims through the secured area of the Espar website.
4. Complete all information including:
  - a) Claimant information
  - b) Espar MSD or Direct Dealer claim number
  - c) Warranty authorization number (WA#), refer to Page 14 of this manual
  - d) Heater model number
  - e) Heater model part number (e.g. 25 1976)
  - f) Heater serial number ("Fabrik No.") including all alpha-numeric digits (e.g. 123456AE)
  - g) Voltage (12V or 24V)
  - h) Repair date
  - i) Application type
  - j) Vehicle information (model, type and VIN)
  - k) Installation date and registered owner information, including name and address

### IMPORTANT NOTE:

**Warranty claims that are inaccurate (information does not correspond to the information received for the warranty registration or sales record at Espar) will be on hold pending the information required for clarification. If required information is not received within ten (10) day the associated claim will be rejected.**

5. Describe the problem and repair in detail in the 'Description of Problem' section; it is mandatory to include all fault codes, testing procedures and values. Note that the description of the troubleshooting should correspond to the relevant fault codes entered in the fields specified.

6. Each claim automatically receives thirty (30) minutes of troubleshooting, Operation Code A and thirty (30) minutes for heater function testing, Operation Code D.
7. In 'Parts Required for Repair' section, indicate the quantity and choose Espar part number and description.
8. Choose the applicable operation code and labor times as per the applicable Flat Rate Labor Guide.

Example: The AIRTRONIC D2 appears to start normally but then it shuts down and attempts to restart. The diagnostic fault codes in memory are: AF 64; F1 64; F2 64 and F3 64. The flame sensor was removed, tested and found to be defective, an open circuit. The operations performed, according to the Flat Rate Labor Guide were:

A .....	Troubleshoot .....	30 minutes
B230 .....	Replace flame sensor .....	10 minutes
D .....	Function test .....	<u>30 minutes</u>
		70 minutes Total Time

9. Indicate the total operating hours, to-date with EDiTH diagnostics.
10. To receive travel time for repair for heaters installed on boats and off-highway heavy equipment, the travel section must be completed on the warranty claim for consideration of payment. Note that maximum limits do apply.

**IMPORTANT NOTE:**

**Espar must receive the warranty claim within thirty (30) days of the date of heater repair. Claims submitted 30-60 days from the date of repair will not include an additional 20% markup on parts for part handling. Claims submitted more than sixty (60) days from the date of repair will be rejected. There will be no exceptions made.**

## Espar's Internal Procedure for Processing Warranty Claims

Espar will make every effort to process warranty claims promptly providing all information is provided as set out in this manual. Thus, Espar is committed to issuing credit for processed warranty claims within thirty (30) days of receiving back the requested parts.

### Warranty Notification Form

It is the dealer's responsibility to respond to the warranty notice (Appendix D) within ten (10) business days. If there is no response within this time period, Espar will permanently close and reject the claim. Espar will not re-open this claim once this process has been completed.

When a warranty claim is processed, according to Espar's existing warranty policy, the Dealer submitting the claim and / or MSD or DD will receive notification based upon the following criteria:

**1. Warranty claim is on-hold**

Extra information is required by Espar to process the warranty claim.

**2. Adjustments were made to the submitted warranty claim**

Labor time / rate requested was incorrect, duplicate labor codes, authorization for excess time, labor or parts were not requested or installation date was incorrect.

**3. Rejection of the warranty claim**

The heater warranty period has expired; parts returned were tested and found to be not defective; parts claimed were not covered under warranty; inadequate parts return; duplicate warranty claim; vehicle owner is not the original registered owner; requested information not returned within ten (10) business days; or unauthorized WA# used for warranty claim that was not approved for a particular serial number, etc.

**4. Acceptance of the warranty claim**

The claim submitted meets all of the necessary criteria and is being processed.

See Appendix D for the notice form.

### Warranty Authorization (WA)

A warranty authorization number (WA#) will be issued only for claims that are abnormal or outside the normal scope of the warranty manual. Please refer to the Flat Rate Labor Guide for the particular heater in question to see the additional parts that are allowable under certain conditions. These are identified by the shaded areas on the Flat Rate Labor Guide. Please request this WA# PRIOR to submitting any claim by sending an email to Espar's Warranty Administrator for authorization. The email must include the serial number of the heater, the end user (customer's) name, a detailed description of the problem and tests performed and the main reason for the request. The WA request will be approved or rejected by the Warranty Department at their discretion based on the supplied information.

The warranty authorization number (WA#) issued by Espar pertains to one specific instance only and is to be used when submitting the claim on-line. It is not a generic number to be used liberally and if used as such will result in immediate warranty claim rejection.

## Warranty Evaluation (WE)

Every claimed part must be tagged and held for thirty (30) days following the submission of a warranty claim. During this time frame Espar may request that a part or heater be returned to Espar for evaluation. In this case the following procedures will apply:

1. When requesting parts and / or heaters back for evaluation, associated with a warranty claim, the Warranty Administrator will issue a Warranty Evaluation (WE) reference number and contact the customer of record (authorized Espar MSD / Direct Dealer) via email. It is the responsibility of the MSD / DD to distribute this number to their sub-dealers. Upon receiving a WE# all parts corresponding to the given WE# must be returned within thirty (30) days.

### **IMPORTANT NOTE:**

**If the part is not received within this time frame the corresponding claim will receive no handling. If the part is still not received within the following thirty (30) days, the claim will be rejected and closed permanently.**

2. All paperwork and packaging must reference the WE number to avoid rejection. When any product is returned without a WE number there will be a \$50.00 administration charge to your account. No exceptions will be made.
3. Parts and heaters must be packaged securely to avoid damage in transit, as damaged parts / heaters are not covered under warranty.
4. Ship via UPS ground. Air shipments will not be paid for by Espar.
5. All parts and heaters must be marked clearly with a completed warranty tag (refer to Appendix B). Parts that are not tagged will not be tested, which will result in automatic claim rejection. Parts can be returned to the dealer at their cost. Proper documentation must accompany each shipment, which includes: shipping labels marked clearly with Espar reference numbers, affixed to the outside of the package (refer to Appendix C).

### **Canadian Customers ONLY**

Ship to: Warranty Department  
Espar Products, Inc.  
6099A Vipond Drive  
Mississauga, Ontario  
L5T 2B2 CANADA  
Espar Reference Number (WE# assigned to you)

### **U.S. Customers ONLY**

Ship to: Warranty Department  
Espar Products, Inc.  
60 Industrial Parkway, Suite 730  
Cheektowaga, New York 14227  
USA  
Espar Reference Number (WE# assigned to you)

**NOTE: Tested parts found not to be defective can be returned to a dealer at their request and cost. All parts are disposed by Espar thirty (30) days after the disposition of the claim has been sent to the dealer.**

## “Always Repair Heater” Policy

Espar and Eberspaecher have an “Always Repair Heater” policy. In the case that a Main Service Distributor or Dealer has difficulty in diagnosing and repairing a heater they should contact Espar’s Technical Department for further assistance. After consulting with Espar and providing that it is within its warranty period and Espar has deemed it necessary to have the heater returned, Espar will issue an RR#. This will authorize the heater to be shipped to Espar for repair. A replacement heater should not be permanently issued to the customer prior to Espar assisting with the correct diagnosis of the heater in question.

### Procedure for Submitting a Heater to Espar for Repair Purposes (RR)

1. A request must be made to Espar’s Warranty Supervisor or Technical Department.
2. Espar’s Warranty Supervisor or Tech Department will issue a “Repair / Rework” (RR) number.
3. The product may then be returned to Espar with the RR number clearly marked on the shipping label (refer to Appendix C) and package(s). All costs associated with shipping the heater to Espar will be the responsibility of the dealer or heater owner. Parts and heaters must be packaged securely to avoid damage in transit. Parts damaged due to this will not be covered under warranty. Proper documentation must accompany each shipment, which includes: shipping labels marked clearly with Espar reference numbers, where applicable and affixed to the outside of the package (Refer to Appendix C).
4. Upon receipt, the heater will be tested and if possible, repaired. If the heater can not be repaired and it is still under warranty, it will be replaced at Espar’s expense. A replacement heater will be warranted for ninety (90) days or the balance of previous heater’s warranty, whichever is longer.
5. The repaired heater, or new heater, when applicable, will be returned to the dealer or MSD. Shipping costs (UPS ground) of the return heater to the Dealer or MSD will be covered by Espar.
6. If a heater is returned without an RR number, there will be a \$50.00 administration charge to your account. No exceptions will be made. In addition, heaters returned with proper authorization will receive the highest priority for repair.

#### **Canadian Customers ONLY**

Ship to:           Warranty Department  
                        Espar Products, Inc.  
                        6099A Vipond Drive  
                        Mississauga, Ontario  
                        L5T 2B2 CANADA  
                        Espar Reference Number (RR# assigned to you)

#### **U.S. Customers ONLY**

Ship to:           Warranty Department  
                        Espar Products, Inc.  
                        60 Industrial Parkway, Suite 730  
                        Cheektowaga, New York 14227  
                        USA  
                        Espar Reference Number (RR# assigned to you)



## New Defective Parts or Heaters (when they are NOT covered under warranty)

If a new part or heater is determined to be defective by visual inspection, or found to be functionally defective immediately, prior to installation, it should be returned to Espar using a Return Goods Authorization Policy (RGA). **New defective parts or heaters can not be claimed as warranty.**

### Procedure for Returning Defective Goods (RGA)

1. A faxed copy of the original invoice or packing slip (with the new, defective part or heater listed on it must be submitted to the attention of Espar's **Customer Service Department**). Verbal requests will not be accepted or processed.
2. Espar's Customer Service staff will then fax back a Return Goods Authorization (RGA) number.
3. The product may then be returned to Espar with a copy of the Return Goods Authorization (RGA) form enclosed.
4. Parts and heaters must be packaged securely to avoid damage in transit.
5. Ship via UPS ground. Air shipments will not be paid for by Espar.
6. Proper documentation must accompany each shipment, which includes: shipping labels marked clearly with Espar RGA, affixed to the outside of the package (refer to Appendix C).

#### **Canadian Customers ONLY**

Ship to: Customer Service Department  
Espar Products, Inc.  
6099A Vipond Drive  
Mississauga, Ontario  
L5T 2B2 CANADA  
Espar Reference Number (RGA# assigned to you)

#### **U.S. Customers ONLY**

Ship to: Customer Service Department  
Espar Products, Inc.  
60 Industrial Parkway, Suite 730  
Cheektowaga, New York 14227  
USA  
Espar Reference Number (RGA# assigned to you)

7. Upon receipt, the product will then be inspected and a credit will be processed to the customer of record, MSD or DD, or may be refused if testing concludes the product is functional. If the product has been found to be used (installed) the RGA will be rejected and no warranty claim will be accepted.
8. When any product is returned without an RGA number there will be a \$50.00 administration charge to your account. No exceptions will be made.

## Procedure for Warranty Appeal

It is Espar's intent to close all claims within thirty (30) days after parts are returned and claim process is completed.

The warranty appeal must be filed within thirty (30) days of claim rejection issue date in order to receive consideration for reversal.

### **IMPORTANT NOTE:**

**Appeals will not be considered for claims that have aged beyond thirty (30) days of final rejection issue date and closed permanently.**

## Warranty Appeal Process

1. The claim outcome is communicated to the MSD or Dealer with the appeal document (refer to Appendix F).
2. The Dealer files an appeal to Espar through the Warranty Administrator. This must be within thirty (30) days from the claim outcome that was communicated.
3. The Warranty Technologist re-opens the claim for processing.
4. The Warranty Technologist re-evaluates the claim based on the new information from the appeal.
5. If there is a warranty returned part involved in the appeal, the Warranty Technician will re-test the part again and document the test results.
6. Based on the outcome of the report of the second test, the final disposition will be communicated to the MSD or Dealer and the claim will be closed.

## Espar Flat Rate Labor Guide

This Flat Rate Labor Guide has been developed and based on the worldwide experience of Espar and Eberspaecher service centers. This guide is organized by heater model in order of heat output.

When submitting a warranty claim, it is mandatory to log a detailed description of the repair. The description you provide should correspond with the fault codes indicated. It is imperative to verify replaced parts as failed parts.

**IMPORTANT NOTE:**

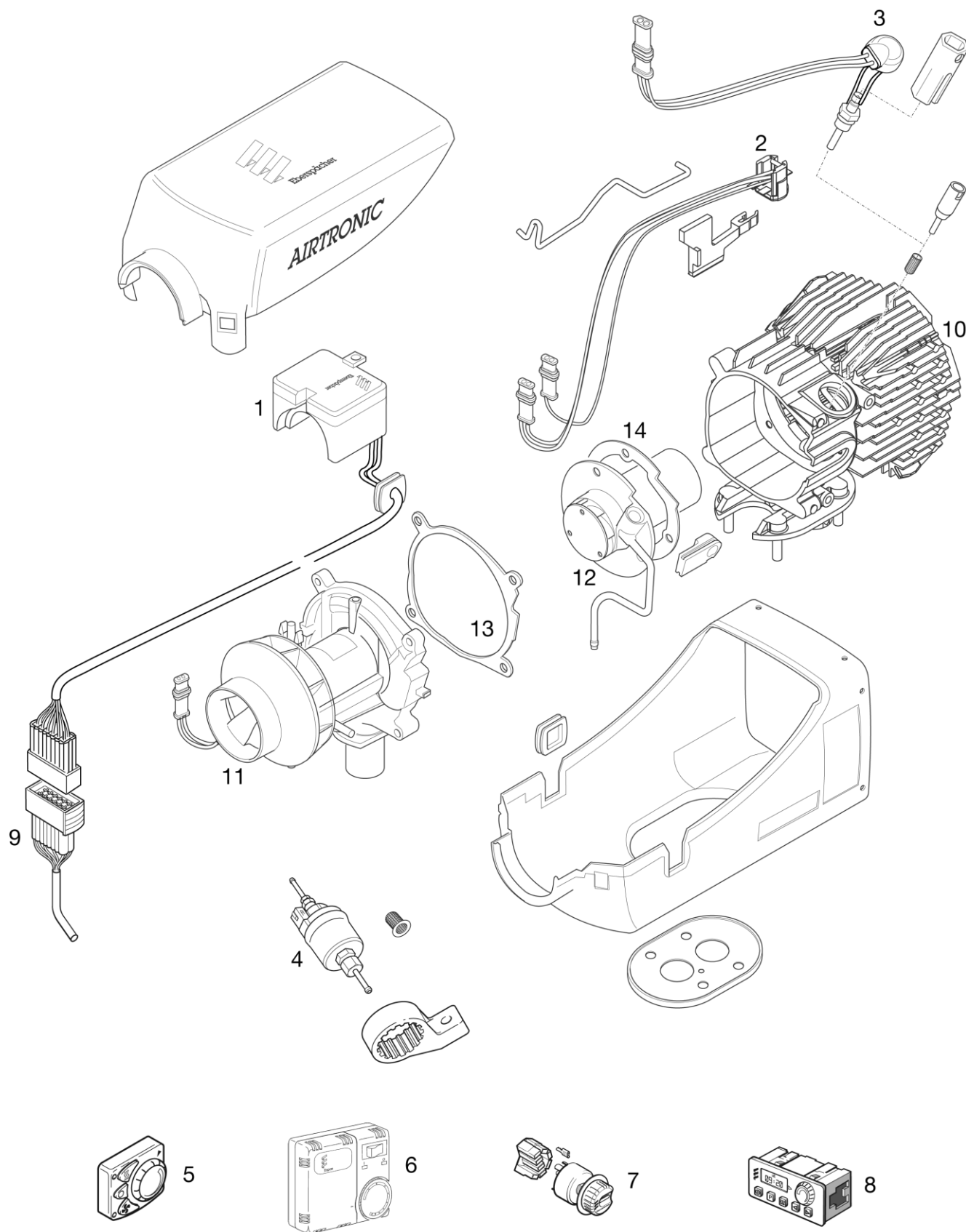
**Espar and Eberspaecher have an “Always Repair Heater” policy.**

## AIRTRONIC 2 / 4

### For Heater Model Numbers:

	12V	24V
AIRTRONIC D2	25 2069	25 2070
AIRTRONIC D4	25 2113	25 2114
AIRTRONIC B4	20 1812	

Diagram Reference Number	Part Description	Operation	Flat Rate Labor Code	Time Allowance (minutes)	Warranty Authorization Number (WA#) Required
<b>A. Troubleshoot</b>			<b>A</b>	<b>30</b>	
<b>B. Components Replaced with Heater Installed</b>					
1	Electronic Control Unit (ECU)	Replace	<b>A-B180</b>	10	
2	Combi-Sensor (Overheat / Flame)	Replace	<b>A-B230</b>	10	
3	Glow Pin with Tool	Replace	<b>A-B310</b>	10	
4	Fuel Metering Pump	Replace	<b>A-B480</b>	10	
5	Mini-Controller	Replace	<b>A-B540</b>	15	
6	Thermostat	Replace	<b>A-B545</b>	15	
7	Rheostat	Replace	<b>A-B550</b>	10	
8	7-Day Timer	Replace	<b>A-B565</b>	15	
	Digi-Max	Replace	<b>A-B572</b>	10	
9	Main Wire Harness	Repair	<b>A-B580</b>	30	
9	Main Wire Harness	Replace	<b>A-B520</b>	30	•
10	Heat Exchanger / Burner	Clean	<b>A-B010</b>	15	•
<b>C. Components Replaced with Heater Removed</b>			<b>A-C000</b>	<b>60</b>	
11	Blower Unit	Replace	<b>A-C100</b>	10	
12	Burner / Flame Tube	Replace	<b>A-C050</b>	20	
13	Gasket, Blower	Replace	<b>A-C145</b>	15	
14	Gasket, Burner	Replace	<b>A-C080</b>	10	
<b>D. Heater Function Test</b>			<b>D</b>	<b>30</b>	

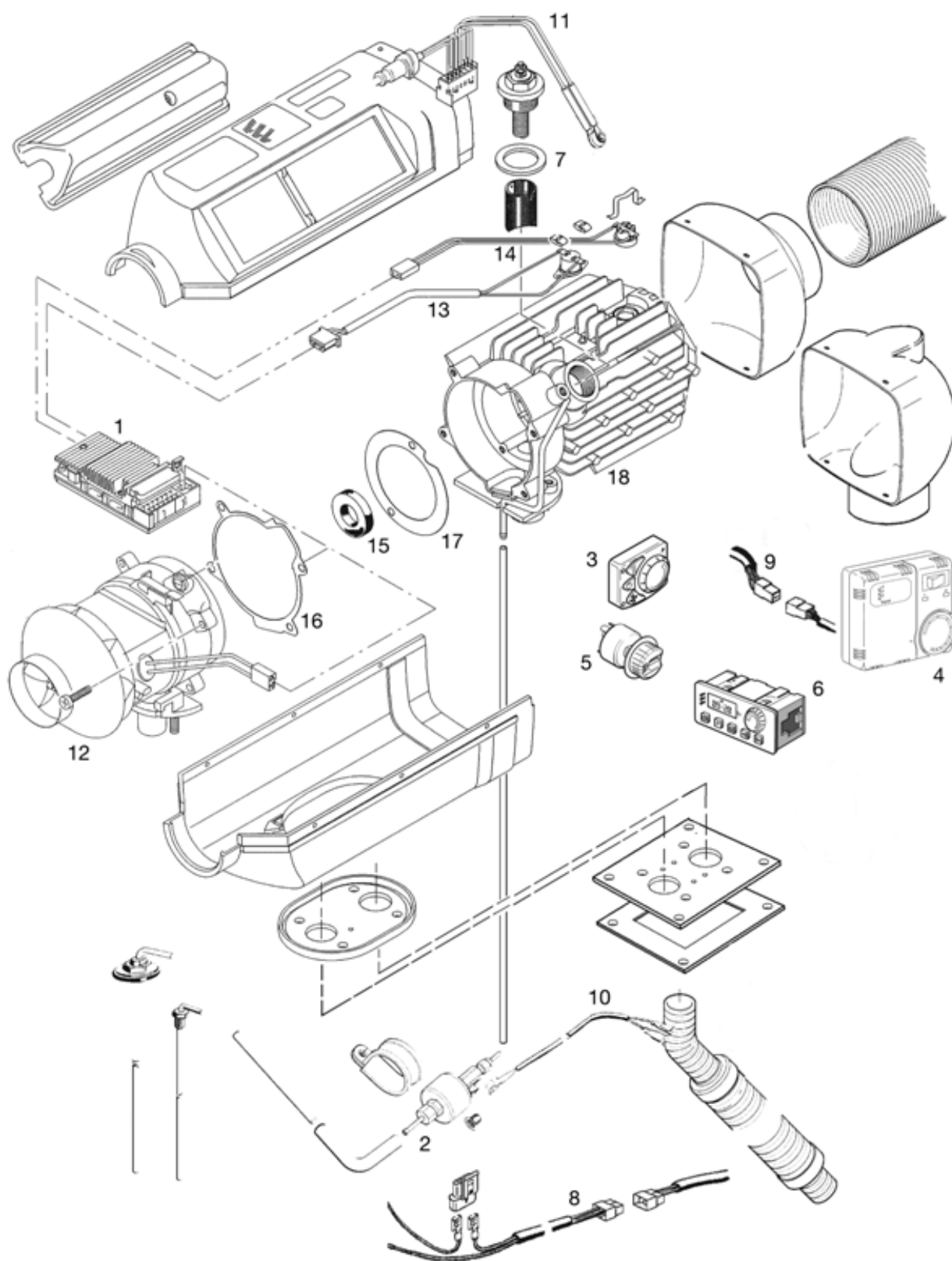


## B/D1LC Compact

For Heater Model Numbers:

	12V
B1LC Compact	20 1766
D1LC Compact	25 1976

Diagram Reference Number	Part Description	Operation	Flat Rate Labor Code	Time Allowance (minutes)	Warranty Authorization Number (WA#) Required
<b>A. Troubleshoot</b>			<b>A</b>	<b>30</b>	
<b>B. Components Replaced with Heater Installed</b>					
1	Electronic Control Unit (ECU)	Replace	D1-B180	10	
2	Fuel Metering Pump	Replace	D1-B480	10	
3	Mini-Controller	Replace	D1-B540	15	
4	Thermostat	Replace	D1-B545	15	
5	Rheostat	Replace	D1-B550	10	
6	7-Day Timer	Replace	D1-B565	15	
7	Seal, Glow Plug	Replace	D1-B330	10	
8	Battery Wire Harness	Replace	D1-B525	15	
9	Switch Wire Harness	Replace	D1-B530	15	
10	Fuel Metering Pump Wire Harness	Replace	D1-B535	15	
11	Main Wire Harness	Repair	D1-B580	10	
11	Main Wire Harness	Replace	D1-B520	10	•
<b>C. Components Replaced with Heater Removed</b>			<b>D1-C000</b>	<b>60</b>	
12	Blower Unit	Replace	D1-C100	15	
13	Overheat Sensor	Replace	D1-C255	15	
14	Flame Sensor	Replace	D1-C280	15	
15	Seal Ring, burner	Replace	D1-C085	20	
16	Gasket, blower	Replace	D1-C145	15	
17	Gasket, burner	Replace	D1-C080	20	
18	Heat Exchanger / Burner	Replace	D1-C005	25	•
18	Heat Exchanger / Burner	Clean	D1-C010	15	•
<b>D. Heater Function Test</b>			<b>D</b>	<b>30</b>	



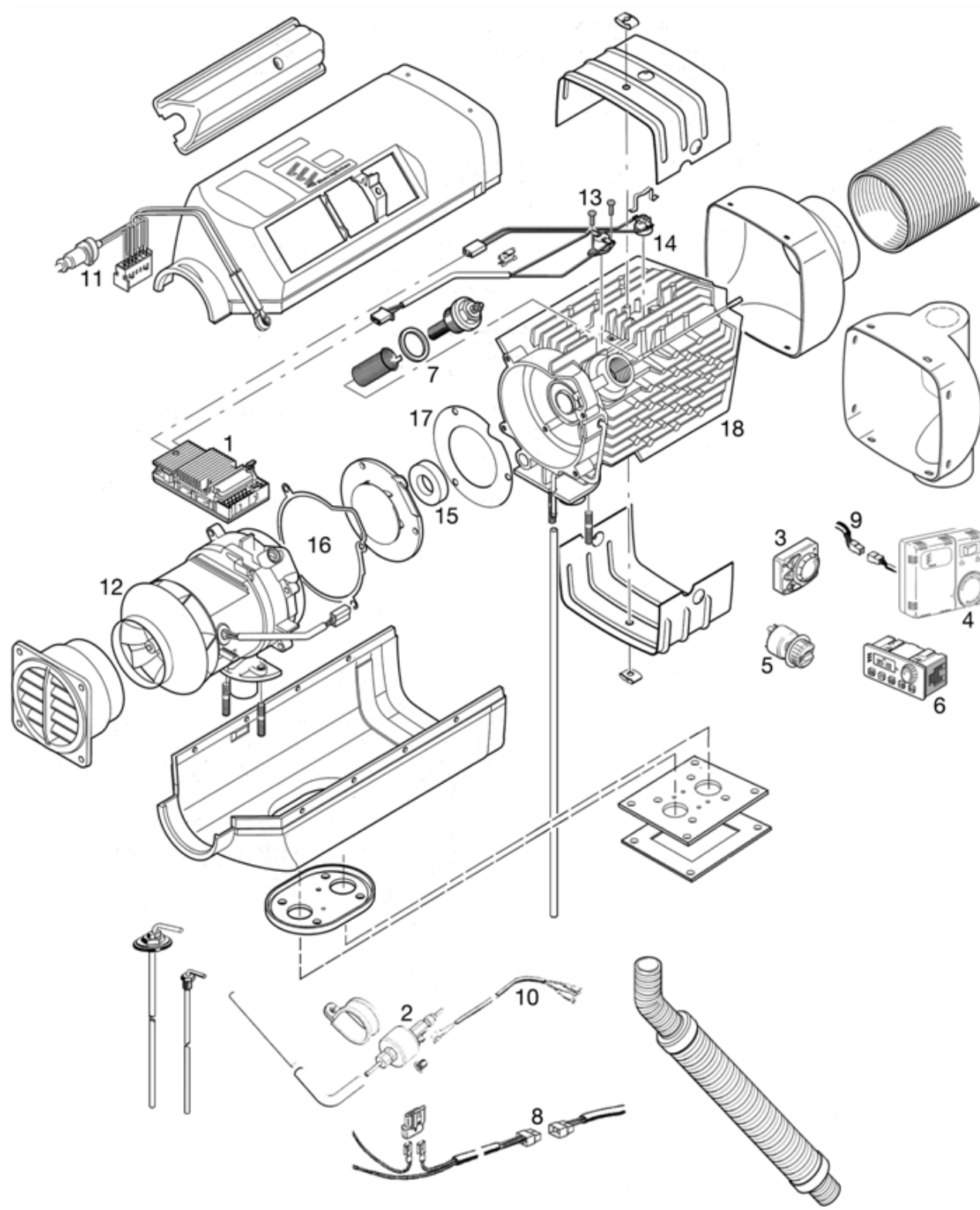
## B/D3LC Compact

### For Heater Model Numbers:

	12V	24V
D3LC Compact	25 1981	

Diagram Reference Number	Part Description	Operation	Flat Rate Labor Code	Time Allowance (minutes)	Warranty Authorization Number (WA#) Required
<b>A. Troubleshoot</b>			<b>A</b>	<b>30</b>	
<b>B. Components Replaced with Heater Installed</b>					
1	Electronic Control Unit (ECU)	Replace	D3-B180	10	
2	Fuel Metering Pump	Replace	D3-B480	10	
3	Mini-Controller	Replace	D3-B540	15	
4	Thermostat	Replace	D3-B545	15	
5	Rheostat	Replace	D3-B550	10	
6	7-Day Timer	Replace	D3-B565	15	
7	Seal, Glow Plug	Replace	D3-B330	10	
8	Battery Wire Harness	Replace	D3-B525	15	
9	Switch Wire Harness	Replace	D3-B530	15	
10	Fuel Metering Pump Wire Harness	Replace	D3-B535	15	
11	Main Wire Harness	Repair	D3-B580	10	
11	Main Wire Harness	Replace	D3-B520	10	•
<b>C. Components Replaced with Heater Removed</b>			D3-C000	60	
12	Blower Unit	Replace	D3-C100	15	
13	Overheat Sensor	Replace	D3-C255	15	
14	Flame Sensor	Replace	D3-C280	15	
15	Seal Ring, burner	Replace	D3-C085	20	
16	Gasket, blower	Replace	D3-C145	15	
17	Gasket, burner	Replace	D3-C080	20	
18	Heat Exchanger / Burner	Replace	D3-C005	25	•
18	Heat Exchanger / Burner	Clean	D3-C010	15	•
<b>D. Heater Function Test</b>			<b>D</b>	<b>30</b>	



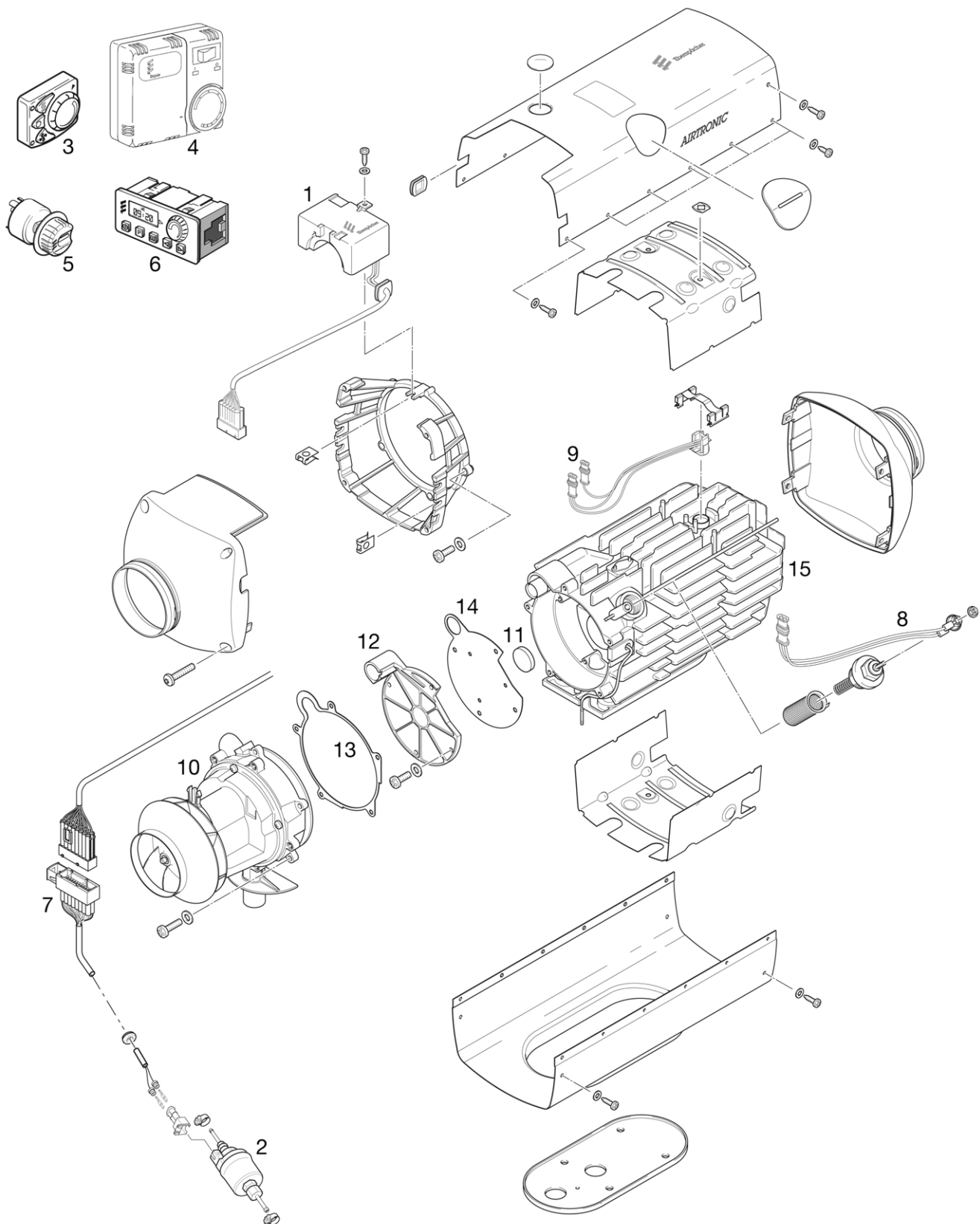


# AIRTRONIC 5

## For Heater Model Numbers:

	12V	24V
AIRTRONIC B5	20 1859	
AIRTRONIC D5	25 2361	25 2362

Diagram Reference Number	Part Description	Operation	Flat Rate Labor Code	Time Allowance (minutes)	Warranty Authorization Number (WA#) Required
<b>A. Troubleshoot</b>			<b>A</b>	<b>30</b>	
<b>B. Components Replaced with Heater Installed</b>					
1	Remote Temperature Sensor	Replace	<b>A5-B180</b>	10	
2	Fuel-Metering Pump	Replace	<b>A5-B480</b>	10	
3	Mini-Controller	Replace	<b>A5-B540</b>	15	
4	Thermostat	Replace	<b>A5-B545</b>	10	
5	Rheostat	Replace	<b>A5-B550</b>	15	
6	7 Day Timer	Replace	<b>A5-B565</b>	15	
	Digi-Max	Replace	<b>A5-B572</b>	10	
7	Main Wire Harness	Repair	<b>A5-B580</b>	30	
7	Main Wire Harness	Replace	<b>A5-B520</b>	30	•
<b>C. Components Replaced with Heater Removed</b>			<b>A5-C000</b>	<b>60</b>	
8	Cable, Glow Plug	Replace	<b>A5-C345</b>	15	
9	Combi-Sensor (Overheat / Flame)	Replace	<b>A5-C230</b>	20	
10	Blower Unit	Replace	<b>A5-C100</b>	20	
11	Seal Ring, burner	Replace	<b>A5-C085</b>	25	
12	Cover, burner	Replace	<b>A5-C090</b>	25	
13	Gasket, blower	Replace	<b>A5-C145</b>	15	
14	Gasket, burner	Replace	<b>A5-C080</b>	20	
15	Heat Exchanger / Burner	Replace	<b>A5-C005</b>	30	•
15	Heat Exchanger / Burner	Clean	<b>A5-C010</b>	15	•
<b>D. Heater Function Test</b>			<b>D</b>	<b>30</b>	

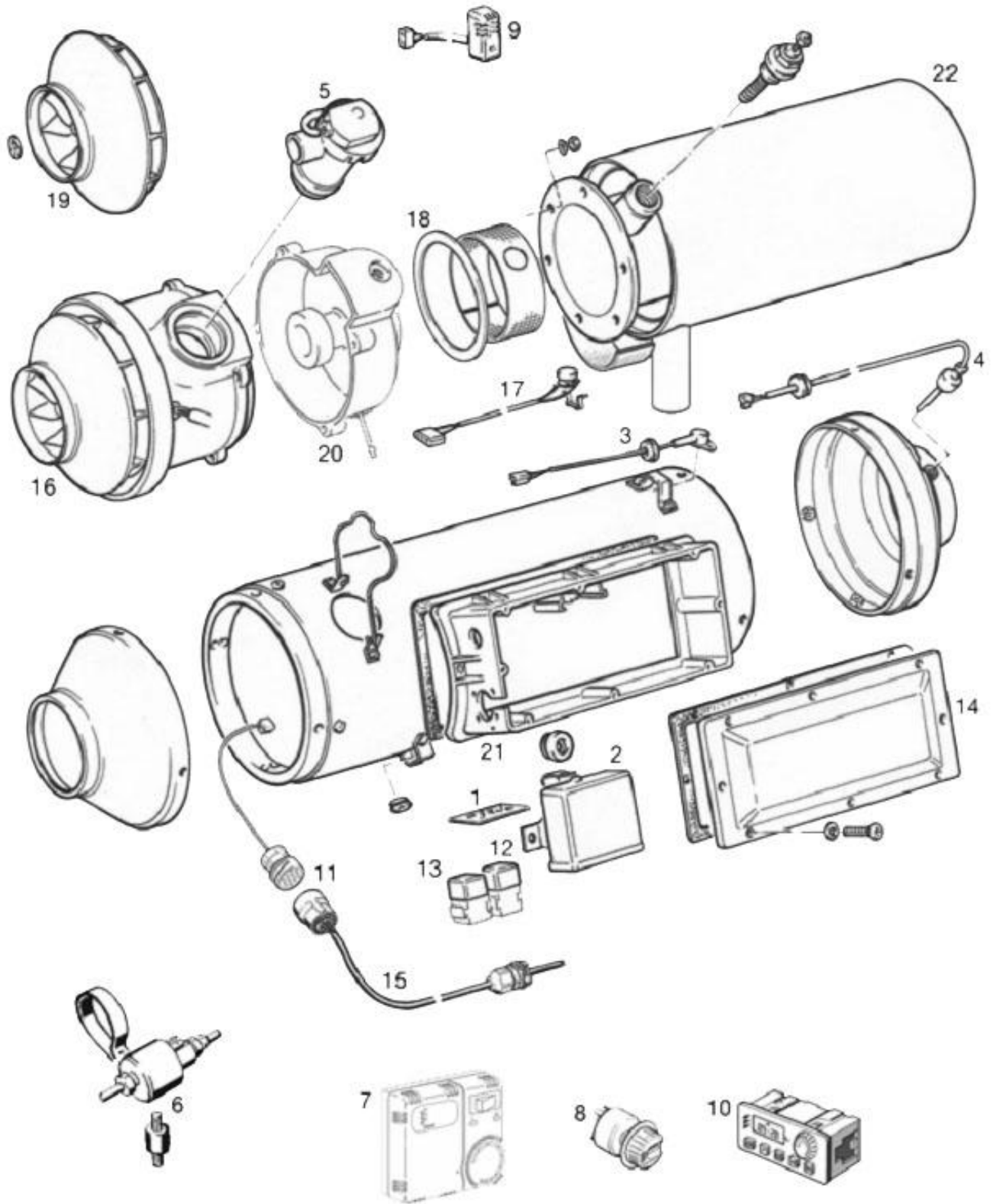


# D8LC

## For Heater Model Numbers:

	12V	24V
D8LC	25 1890	25 1891

Diagram Reference Number	Part Description	Operation	Flat Rate Labor Code	Time Allowance (minutes)	Warranty Authorization Number (WA#) Required
<b>A. Troubleshoot</b>			<b>A</b>	<b>30</b>	
<b>B. Components Replaced with Heater Installed</b>					
1	Printed Circuit Board	Replace	D8-B175	10	
2	Electronic Control Unit (ECU)	Replace	D8-B180	10	
3	Overheat Switch	Replace	D8-B270	10	
4	Temperature Sensor	Replace	D8-B305	10	
5	Air-Solenoid Valve	Replace	D8-B380	10	
6	Fuel Metering Pump	Replace	D8-B480	10	
7	Thermostat	Replace	D8-B545	15	
8	Rheostat	Replace	D8-B550	10	
9	Remote Temperature Sensor	Replace	D8-B555	15	
10	7-Day Timer	Replace	D8-B565	15	
	Digi-Max	Replace	D8-B572	10	
11	Main Wire Harness	Repair	D8-B580	30	
11	Main Wire Harness	Replace	D8-B520	30	•
12	Glow Plug Relay	Replace	D8-B355	5	•
13	Relay	Replace	D8-B390	5	•
14	Cover, Component Box Housing	Replace	D8-B435	5	•
15	Internal Main Wire Harness	Replace	D8-B510	15	•
<b>C. Components Replaced with Heater Removed</b>			<b>D8-C000</b>	<b>60</b>	
16	Blower Unit	Replace	D8-C100	35	
17	Flame Sensor	Replace	D8-C280	30	
18	Gasket, Burner	Replace	D8-C080	15	
19	Fan Wheel, Blower Unit	Replace	D8-C130	15	•
20	Housing, Blower Unit	Replace	D8-C135	35	•
21	Component Box housing with Seal	Replace	D8-C430	20	•
22	Heat Exchanger / Burner	Replace	D8-C005	45	•
22	Heat Exchanger / Burner	Clean	D8-C010	20	•
<b>D. Heater Function Test</b>			<b>D</b>	<b>30</b>	



# HYDRONIC 4 / 5 SC

(Integrated Coolant Pump, Integrated Fuel Metering Pump)

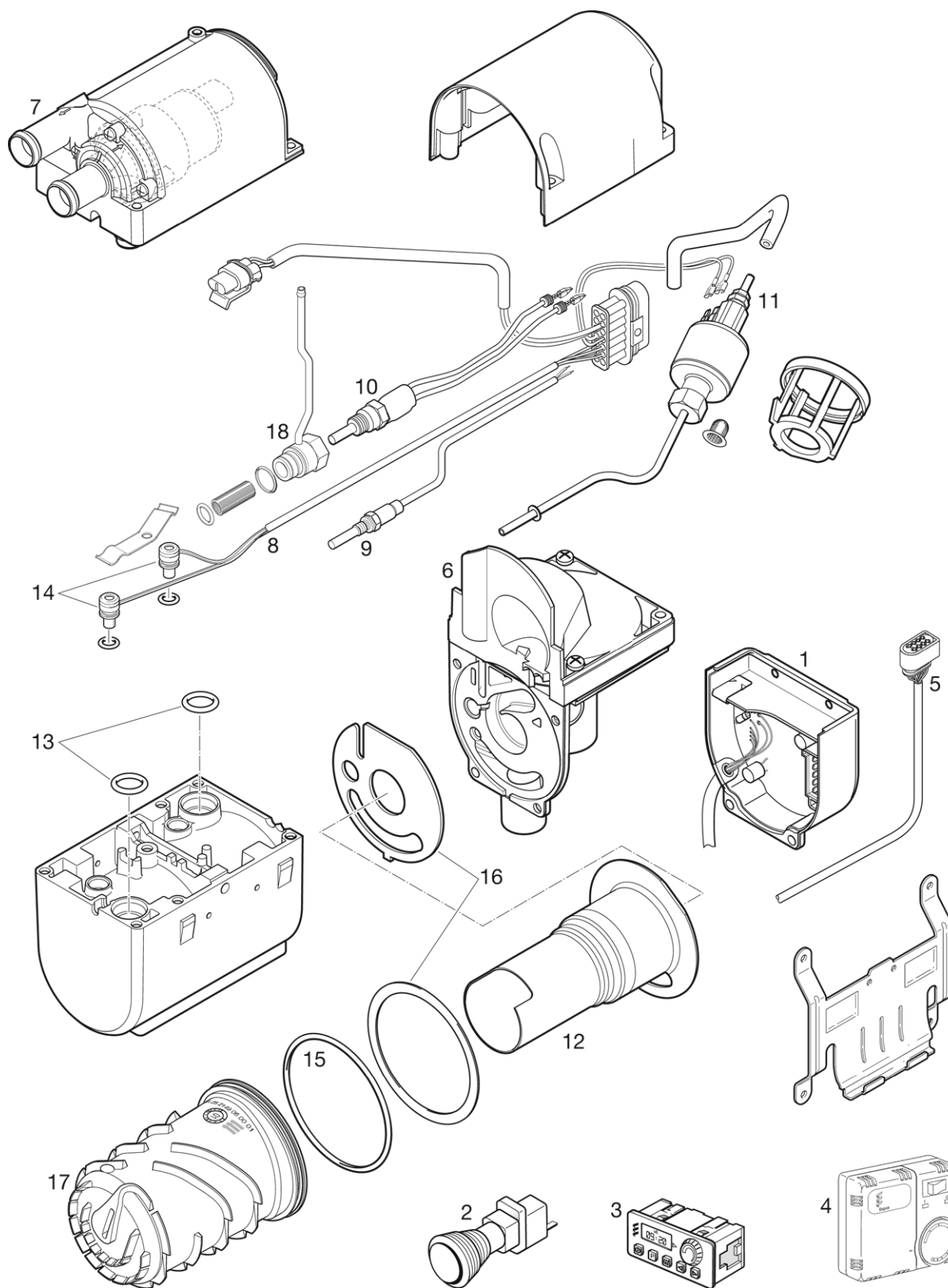
For Heater Model Numbers:

	12V
HYDRONIC D5	25 2219

Diagram Reference Number	Part Description	Operation	Flat Rate Labor Code	Time Allowance (minutes)	Warranty Authorization Number (WA#) Required
<b>A. Troubleshoot</b>			<b>A</b>	<b>30</b>	
<b>B. Components Replaced with Heater Installed</b>					
1	Electronic Control Unit (ECU)	Replace	H1-B180	10	
2	Push / Pull Switch	Replace	H1-B560	10	
3	7-Day Timer	Replace	H1-B565	15	
4	Thermostat	Replace	H1-B545	15	
	Multi-Max	Replace	H1-B573	10	
5	Main Wire Harness	Repair	H1-B580	30	
5	Main Wire Harness	Replace	H1-B520	30	•
<b>C. Components Replaced with Heater Removed</b>			<b>H1-C000</b>	<b>60</b>	
6	Blower Unit	Replace	H1-C100	20	
7	Coolant Pump	Replace	H1-C200	15	
8	Overheat Sensor with Cable Section	Replace	H1-C240	25	
9	Flame Sensor	Replace	H1-C280	15	
10	Glow Pin	Replace	H1-C310	15	
11	Fuel Metering Pump	Replace	H1-C480	20	
12	Burner / Flame Tube	Replace	H1-C050	25	
13	O-Ring, Heat Exchanger	Replace	H1-C020	30	
14	Seal Kit	Replace	H1-C081	25	
15	Heat Exchanger	Clean	H1-C010	15	•
16	Fuel Connection, Glow Pin	Replace	H1-C315	20	•
<b>D. Heater Function Test</b>			<b>D</b>	<b>30</b>	

# HYDRONIC 4 / 5 SC

(Integrated Coolant Pump, Integrated Fuel Metering Pump)



# HYDRONIC 4 / 5 SC

(Integrated Coolant Pump, External Fuel Metering Pump)

## For Heater Model Numbers:

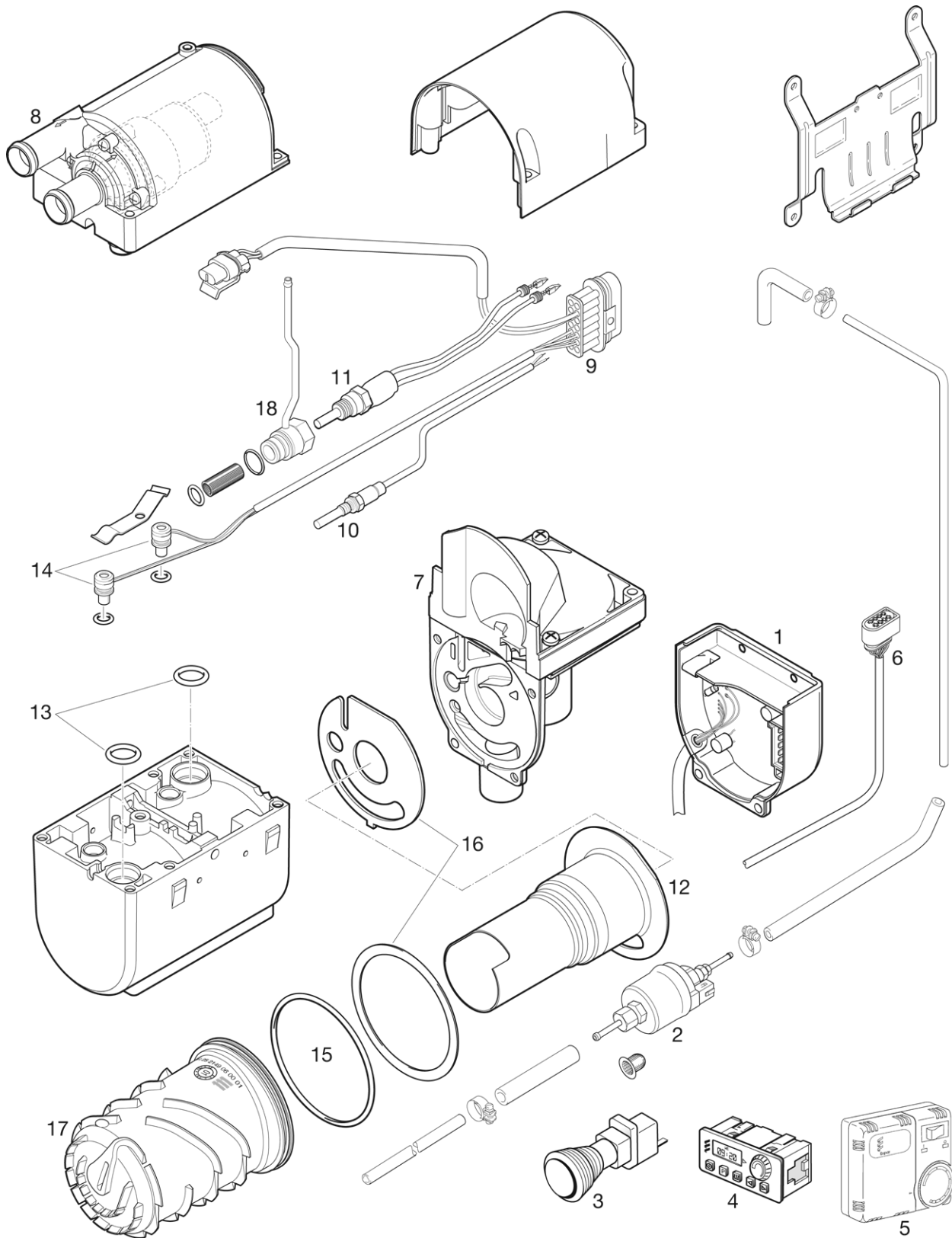
	12V	24V
HYDRONIC D4	20 1824	
HYDRONIC B5	20 1820	
HYDRONIC D5	25 2325	25 2147

Diagram Reference Number	Part Description	Operation	Flat Rate Labor Code	Time Allowance (minutes)	Warranty Authorization Number (WA#) Required
<b>A. Troubleshoot</b>			<b>A</b>	<b>30</b>	
<b>B. Components Replaced with Heater Installed</b>					
1	Electronic Control Unit (ECU)	Replace	H2-B180	10	
2	Fuel Metering Pump	Replace	H2-B480	10	
3	Push / Pull Switch	Replace	H2-B560	10	
4	7-Day Timer	Replace	H2-B565	15	
5	Thermostat	Replace	H2-B545	15	
	Multi-Max	Replace	H2-B573	10	
6	Main Wire Harness	Repair	H2-B580	30	
6	Main Wire Harness	Replace	H2-B520	30	•
<b>C. Components Replaced with Heater Removed</b>			<b>H2-C000</b>	<b>60</b>	
7	Blower Unit	Replace	H2-C100	20	
8	Coolant Pump	Replace	H2-C200	15	
9	Overheat Sensor with Cable Section	Replace	H2-C240	25	
10	Flame Sensor	Replace	H2-C280	15	
11	Glow Pin	Replace	H2-C310	15	
12	Burner / Flame Tube	Replace	H2-C050	25	
15	O-Ring, Heat Exchanger	Replace	H2-C020	30	
16	Seal Kit	Replace	H2-C081	25	
17	Heat Exchanger	Clean	H2-C010	15	•
18	Fuel Connection, Glow Pin	Replace	H2-C315	20	•
<b>D. Heater Function Test</b>			<b>D</b>	<b>30</b>	



# HYDRONIC 4 / 5 SC

(Integrated Coolant Pump, External Fuel Metering Pump)



# HYDRONIC 5 S

(External Coolant Pump, External Fuel Metering Pump)

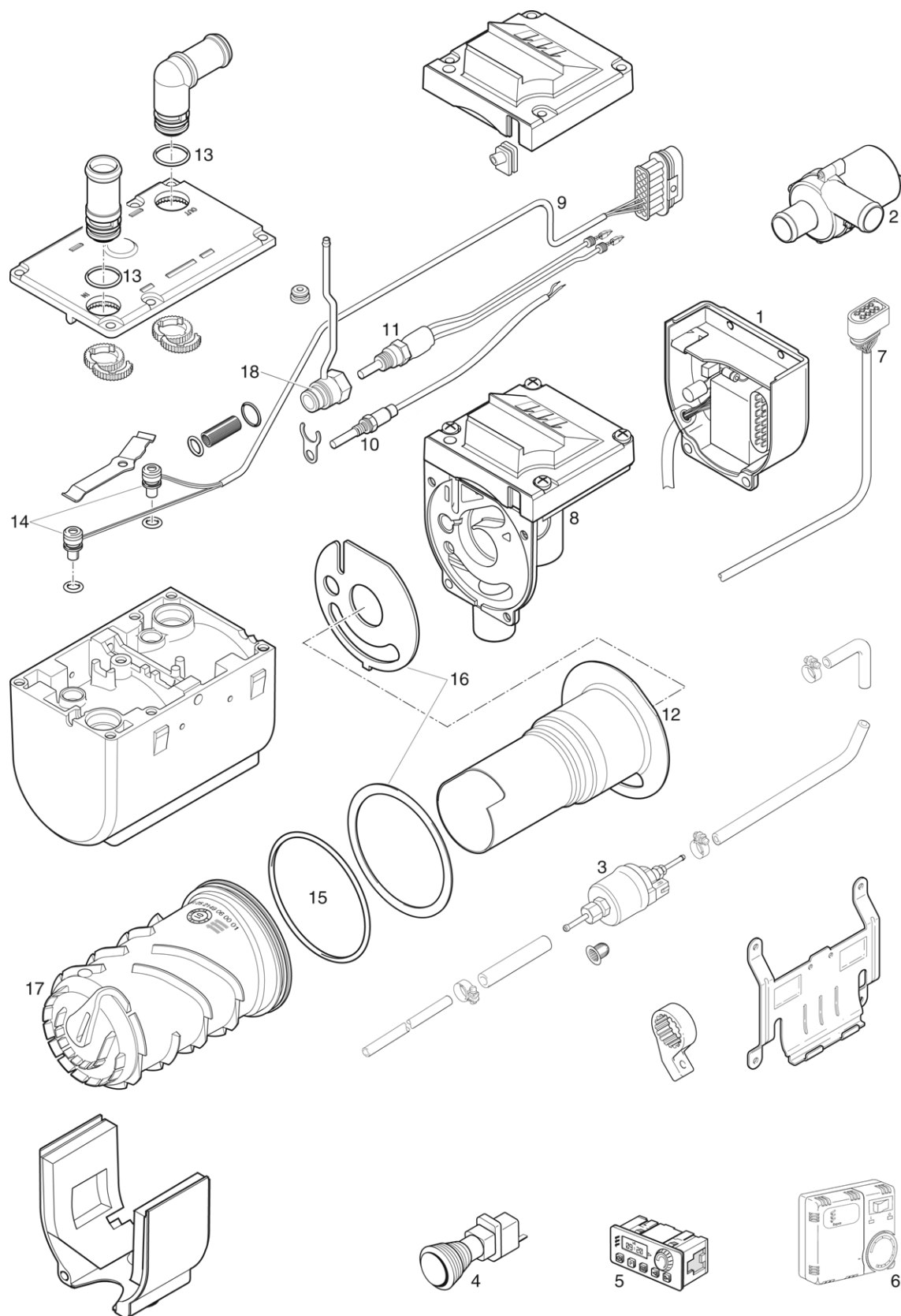
## For Heater Model Numbers:

	12V	24V	24V
HYDRONIC B5	20 1819		
HYDRONIC D5	25 2217	25 2146	25 2218

Diagram Reference Number	Part Description	Operation	Flat Rate Labor Code	Time Allowance (minutes)	Warranty Authorization Number (WA#) Required
<b>A. Troubleshoot</b>			<b>A</b>	<b>30</b>	
<b>B. Components Replaced with Heater Installed</b>					
1	Electronic Control Unit (ECU)	Replace	H3-B180	10	
2	Coolant Pump	Replace	H3-B200	10	
3	Fuel Metering Pump	Replace	H3-B480	10	
4	Push / Pull Switch	Replace	H3-B560	10	
5	7-Day Timer	Replace	H3-B565	15	
6	Thermostat	Repair	H3-B545	15	
	Multi-Max	Replace	H3-B573	10	
7	Main Wire Harness	Repair	H3-B580	30	
7	Main Wire Harness	Replace	H3-B520	30	•
<b>C. Components Replaced with Heater Removed</b>			<b>H3-C000</b>	<b>60</b>	
8	Blower Unit	Replace	H3-C100	20	
9	Overheat Sensor with Cable Section	Replace	H3-C240	25	
10	Flame Sensor	Replace	H3-C280	15	
11	Glow Pin	Replace	H3-C310	15	
12	Burner / Flame Tube	Replace	H3-C050	25	
13	O-Rings, Coolant Pump	Replace	H3-C205	15	
14	O-Rings, Sensors	Replace	H3-C245	15	
15	O-Ring, Heat Exchanger	Replace	H3-C020	30	
16	Seal Kit	Replace	H3-C081	25	
17	Heat Exchanger	Clean	H3-C010	15	•
18	Fuel Connection, Glow Pin	Replace	H3-C315	20	•
<b>D. Heater Function Test</b>			<b>D</b>	<b>30</b>	

# HYDRONIC 5 S

(External Coolant Pump, External Fuel Metering Pump)



## HYDRONIC 5 Z

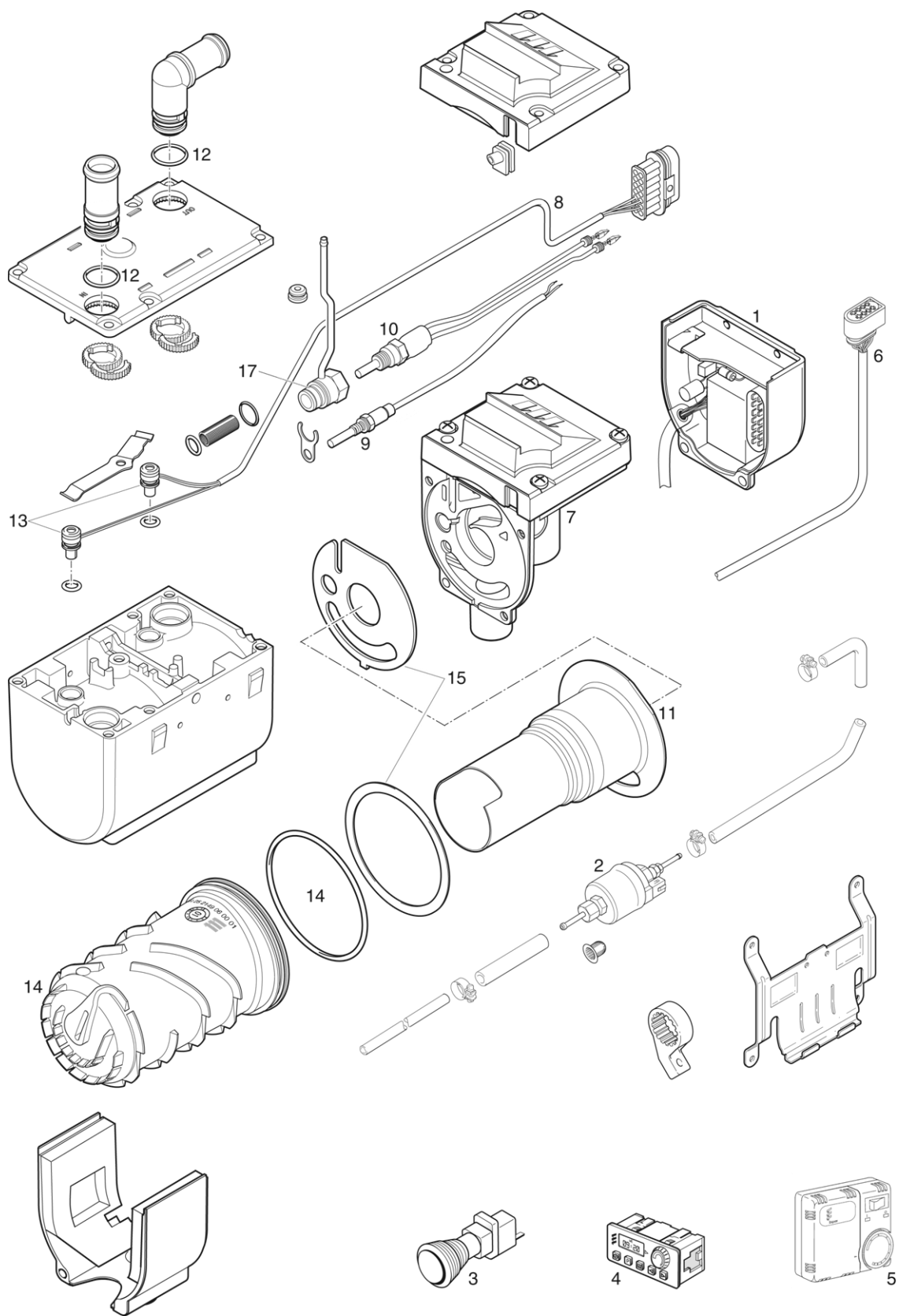
(No Coolant Pump, External Fuel Metering Pump)

For Heater Model Numbers:

	12V
HYDRONIC D5	25 2216

Diagram Reference Number	Part Description	Operation	Flat Rate Labor Code	Time Allowance (minutes)	Warranty Authorization Number (WA#) Required
<b>A. Troubleshoot</b>			<b>A</b>	<b>30</b>	
<b>B. Components Replaced with Heater Installed</b>					
1	Electronic Control Unit (ECU)	Replace	H4-B180	10	
2	Fuel Metering Pump	Replace	H4-B480	10	
3	Push / Pull Switch	Replace	H4-B560	10	
4	7-Day Timer	Replace	H4-B565	15	
5	Thermostat	Replace	H4-B545	15	
6	Main Wire Harness	Repair	H4-B580	30	
6	Main Wire Harness	Replace	H4-B520	30	•
<b>C. Components Replaced with Heater Removed</b>			<b>H4-C000</b>	<b>60</b>	
7	Blower Unit	Replace	H4-C100	20	
8	Overheat Sensor with Cable Section	Replace	H4-C240	25	
9	Flame Sensor	Replace	H4-C280	15	
10	Glow Pin	Replace	H4-C310	15	
11	Burner / Flame Tube	Replace	H4-C050	25	
12	O-Rings, Coolant Pump	Replace	H4-C205	15	
13	O-Rings, Sensors	Replace	H4-C245	15	
14	O-Ring, Heat Exchanger	Replace	H4-C020	30	
15	Seal Kit	Replace	H4-C081	25	
16	Heat Exchanger	Clean	H4-C010	15	•
17	Fuel Connection, Glow Pin	Replace	H4-C315	20	•
<b>D. Heater Function Test</b>			<b>D</b>	<b>30</b>	

HYDRONIC 5 Z  
(No Coolant Pump, External Fuel Metering Pump)



## HYDRONIC II 5E

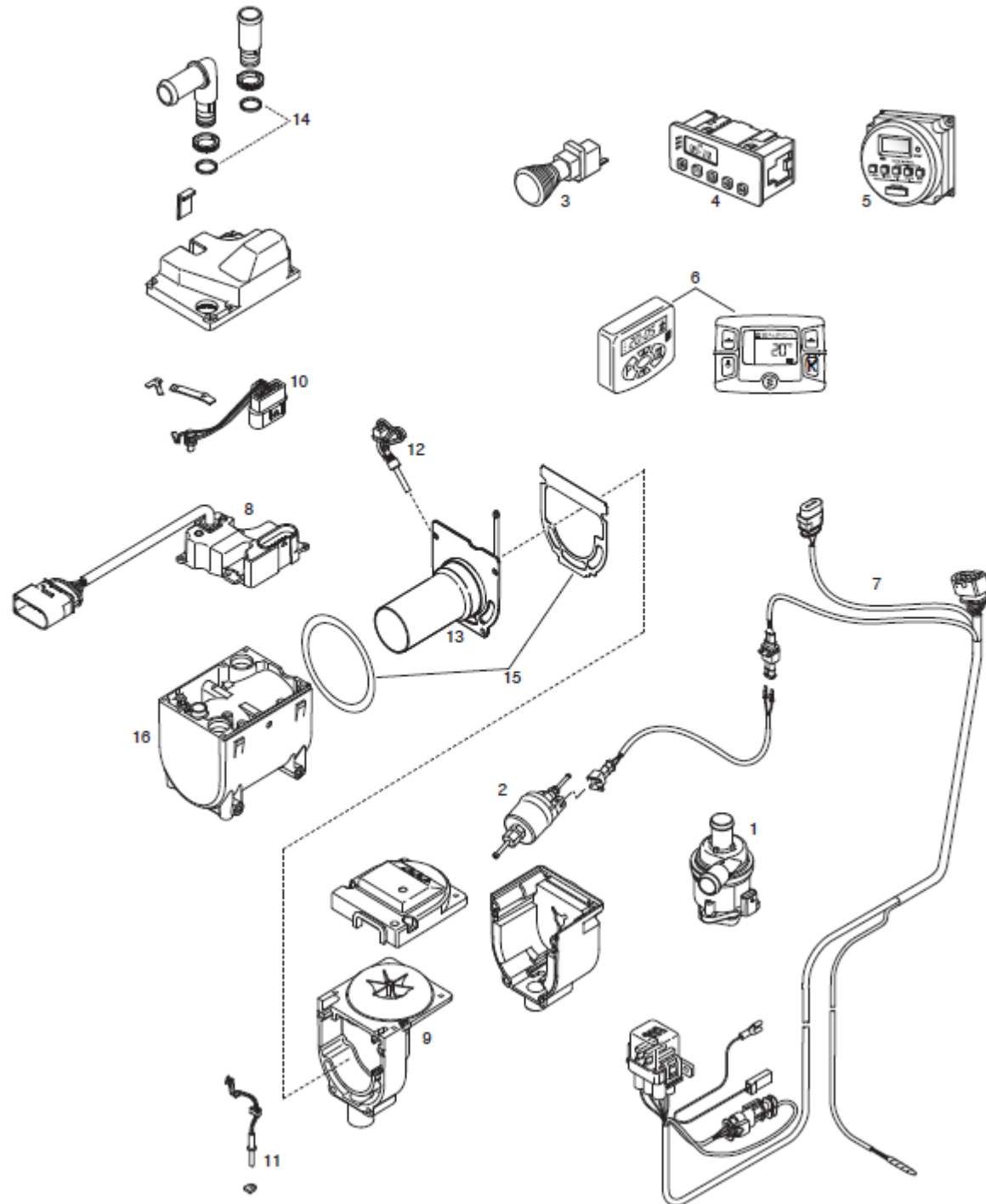
(External Coolant Pump, External Fuel-Metering Pump)

For Heater Model Numbers:

	12V
<i>HYDRONIC B5S</i>	20 1904
<i>HYDRONIC D5S</i>	25 2526

Diagram Reference Number	Part Description	Operation	Flat Rate Labor Code	Time Allowance (minutes)	Warranty Authorization Number (WA#) Required
<b>A. Troubleshoot</b>			<b>A</b>	<b>30</b>	
<b>B. Components Replaced with Heater Installed</b>					
1	Coolant Pump	Replace	<b>H5-B200</b>	10	
2	Fuel-Metering Pump	Replace	<b>H5-B480</b>	10	
3	Push/Pull Switch	Replace	<b>H5-B560</b>	10	
4	7-Day Timer	Replace	<b>H5-B565</b>	15	
5	Programmable Timer	Replace	<b>H5-B570</b>	15	
6	Easy start/Mini Timer	Replace	<b>H5-B571</b>	15	
	Multi-Max	Replace	<b>H5-B573</b>	10	
7	Main Wire Harness	Repair	<b>H5-B580</b>	30	
7	Main Wire Harness	Replace	<b>H5-B520</b>	30	•
<b>C. Components Replaced with Heater Removed</b>			<b>H5-C000</b>	<b>60</b>	
8	Electronic Control Unit (ECU)	Replace	<b>H5-C180</b>	30	
9	Blower Fan	Replace	<b>H5-C100</b>	20	
10	Lead harness(temp & surface sensor)	Replace	<b>H5-C240</b>	25	
11	Flame Sensor	Replace	<b>H5-C280</b>	15	
12	Glow Pin	Replace	<b>H5-C310</b>	15	
13	Combustion Chamber	Replace	<b>H5-C050</b>	25	
14	O-Rings, Water pipe socket	Replace	<b>H5-C205</b>	15	
15	Seal Kit	Replace	<b>H5-C081</b>	25	
16	Heat Exchanger	Clean	<b>H5-C010</b>	15	•
<b>D. Heater Function Test</b>			<b>D</b>	<b>30</b>	

**HYDRONIC II 5 E**  
(External Coolant Pump, External Fuel-Metering Pump)



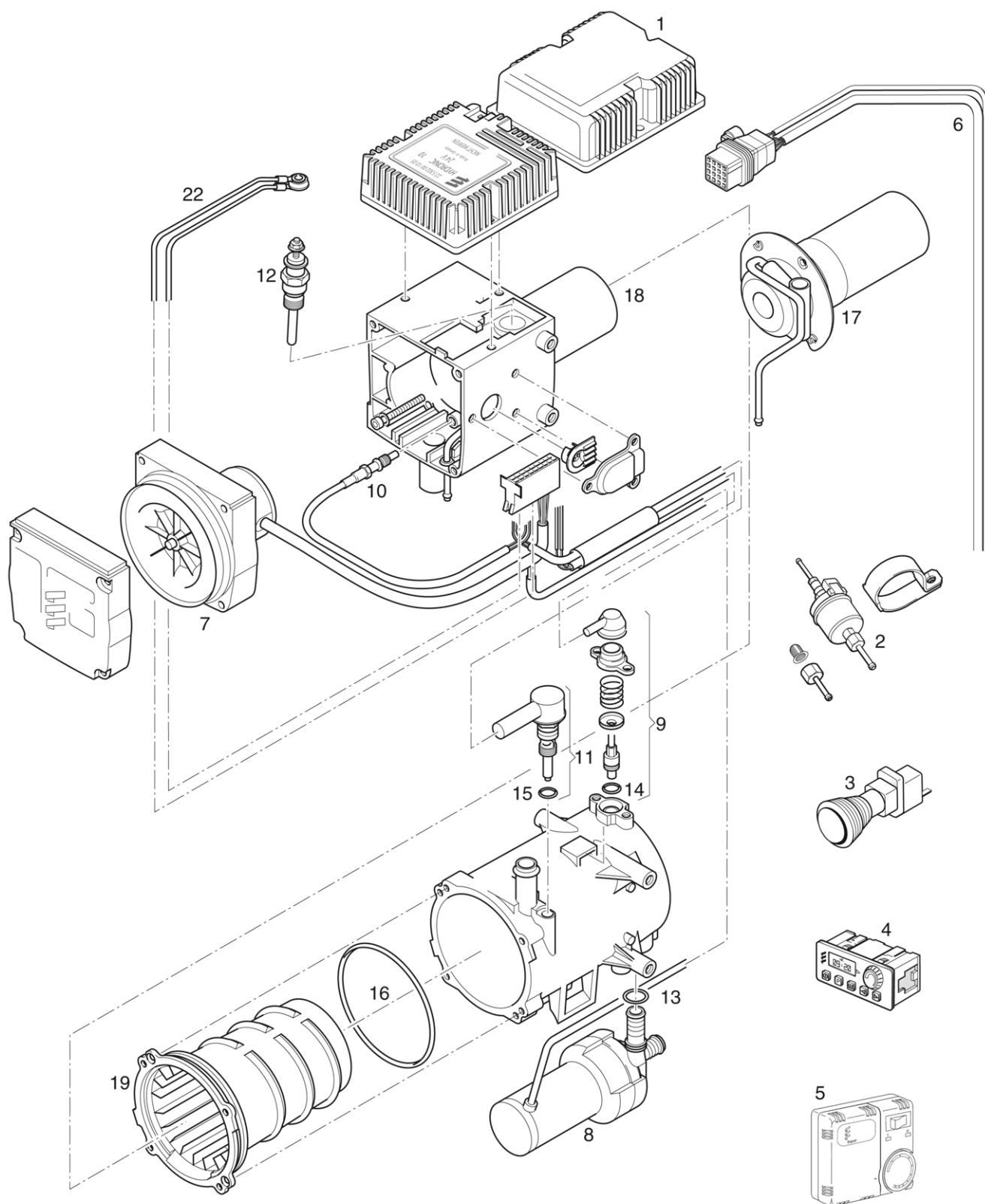
# HYDRONIC 10

## For Heater Model Numbers:

	12V	24V
HYDRONIC 10	25 2160	25 2227

Diagram Reference Number	Part Description	Operation	Flat Rate Labor Code	Time Allowance (minutes)	Warranty Authorization Number (WA#) Required
<b>A. Troubleshoot</b>			<b>A</b>	<b>30</b>	
<b>B. Components Replaced with Heater Installed</b>					
1	Electronic Control Unit (ECU)	Replace	H10-B180	10	
2	Fuel Metering Pump	Replace	H10-B480	10	
3	Push / Pull Switch	Replace	H10-B560	10	
4	7-Day Timer	Replace	H10-B565	15	
5	Thermostat	Replace	H10-B545	15	
	Multi-Max	Replace	H10-B573	10	
6	Main Wire Harness	Repair	H10-B580	30	
6	Main Wire Harness	Replace	H10-B520	30	•
<b>C. Components Replaced with Heater Removed</b>			<b>H10-C000</b>	<b>60</b>	
7	Blower Unit	Replace	H10-C100	15	
8	Coolant Pump	Replace	H10-C200	15	
9	Overheat Sensor	Replace	H10-C255	15	
10	Flame Sensor	Replace	H10-C280	20	
11	Temperature Sensor	Replace	H10-C305	15	
12	Glow Pin	Replace	H10-C310	10	
13	O-Ring, Coolant Pump	Replace	H10-C205	10	
14	O-Ring, Overheat Sensor	Replace	H10-C265	15	
15	O-Ring, Temperature Sensor	Replace	H10-C295	15	
16	O-Ring, Heat Exchanger	Replace	H10-C020	25	
17	Burner / Flame Tube	Replace	H10-C050	35	
18	Burner with Housing	Replace	H10-C055	35	•
19	Heat Exchanger	Clean	H10-C010	15	•
20	Wire Harness, Glow Pin	Replace	H10-C911	15	•
<b>D. Heater Function Test</b>			<b>D</b>	<b>30</b>	





## HYDRONIC MII

### For Heater Model Numbers:

	12V	24V
HYDRONIC M8	25 2470	25 2471
HYDRONIC M10	25 2434	25 2435
HYDRONIC M12	25 2472	25 2473
HYDRONIC M12	25 2596	

Diagram Reference Number	Part Description	Operation	Flat Rate Labor Code	Time Allowance (minutes)	Warranty Authorization Number (WA#) Required
<b>A. Troubleshoot</b>			<b>A</b>	<b>30</b>	
<b>B. Components Replaced with Heater Installed</b>					
1	Coolant Pump	Replace	HM-B200	10	
2	O-Ring, Coolant Pump	Replace	HM-B205	10	
3	Relay Wire Harness	Replace	HM-B440	15	
4	Fuel Metering Pump	Replace	HM-B480	10	
5	Fuel Metering Pump Wire Harness	Replace	HM-B535	15	
6	Push / Pull Switch	Replace	HM-B560	10	
7	7-Day Timer	Replace	HM-B565	15	
8	Programmable Timer	Replace	HM-B570	15	
	Multi-Max	Replace	HM-B573	10	
9	Main Wire Harness	Repair	HM-B580	30	
10	Main Wire Harness	Replace	HM-B520	30	•
<b>C. Components Replaced with Heater Removed</b>			<b>HM-C000</b>	<b>60</b>	
1	Coolant Pump (boxed heater)	Replace	HM-C201	10	
11	Burner / Flame Tube <sup>1</sup>	Replace	HM-C050	70	
12	Seal, Burner	Replace	HM-C080	70	
13	Blower / Control Unit <sup>2</sup>	Replace	HM-C150	75	
14	O-Ring, Blower	Replace	HM-C185	10	
15	Overheat / Temperature Sensor	Replace	HM-C241	35	
16	Flame Sensor	Replace	HM-C280	20	
17	Glow Pins <sup>3</sup>	Replace	HM-C310	70	
18	Coolant Pump Wire Harness	Replace	HM-C450	30	•
19	Heat Exchanger / Water Jacket	Replace	HM-C006	45	•
20	Heat Exchanger / Water Jacket	Clean	HM-C010	45	•
<b>D. Heater Function Test</b>			<b>D</b>	<b>30</b>	

1 – Burner tube replacement includes replacement of burner seal and blower O-ring

2 – Blower / control unit replacement includes replacement of blower O-ring and burner seal

3 – Glow pin replacement includes replacement of blower O-ring and burner seal

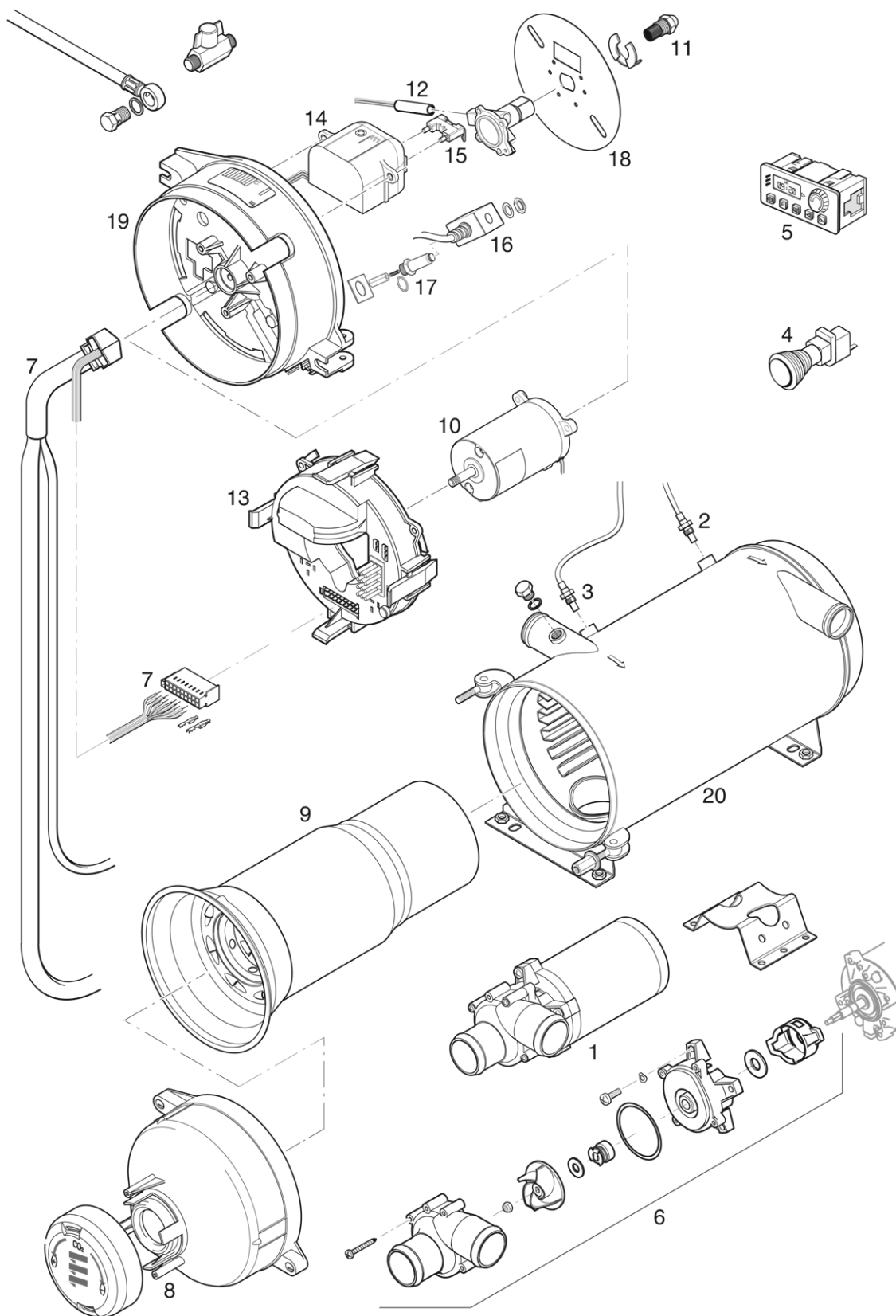


# HYDRONIC 16 / 24 / 30 / 35

## For Heater Model Numbers:

	24V
HYDRONIC 35	25 1819

Diagram Reference Number	Part Description	Operation	Flat Rate Labor Code	Time Allowance (minutes)	Warranty Authorization Number (WA#) Required
<b>A. Troubleshoot</b>			<b>A</b>	<b>30</b>	
<b>B. Components Replaced with Heater Installed</b>					
1	Coolant Pump	Replace	LH-B200	10	
2	Overheat Sensor	Replace	LH-B255	10	
3	Temperature Sensor	Replace	LH-B305	10	
4	Push / Pull Toggle Switch	Replace	LH-B560	10	
5	7-Day Timer	Replace	LH-B565	15	
6	Spare Part Kit, Coolant Pump	Replace	LH-B225	20	
	Multi-Max	Replace	LH-B573	10	
7	Main Wire Harness	Repair	LH-B580	30	
7	Main Wire Harness	Replace	LH-B520	30	•
8	Combustion Air Inlet Hood	Replace	LH-B450	10	•
9	Internal Main Wire Harness	Replace	LH-B510	5	•
<b>C. Components Replaced with Heater Removed</b>			<b>LH-C000</b>	<b>60</b>	
10	Flame Tube	Replace	LH-C050	5	
11	Burner Motor	Replace	LH-C105	10	
12	Fuel Atomizer Nozzle	Replace	LH-C165	10	
13	Heat Element Nozzle	Replace	LH-C170	10	
14	Electronic Control Unit (ECU)	Replace	LH-C180	10	
15	Ignition Spark Generator	Replace	LH-C195	10	
16	Ignition Electrodes	Replace	LH-C335	10	
17	Fuel Solenoid Coil	Replace	LH-C500	15	
18	Hardware for Fuel Solenoid Coil	Replace	LH-C505	15	
19	Baffle Plate / Heat Shield	Replace	LH-C155	5	
20	Fuel Pump / Housing	Replace	LH-C495	20	•
21	Heat Exchanger / Water Jacket	Replace	LH-C006	20	•
21	Heat Exchanger / Water Jacket	Clean	LH-C010	20	•
<b>D. Heater Function Test</b>			<b>D</b>	<b>30</b>	

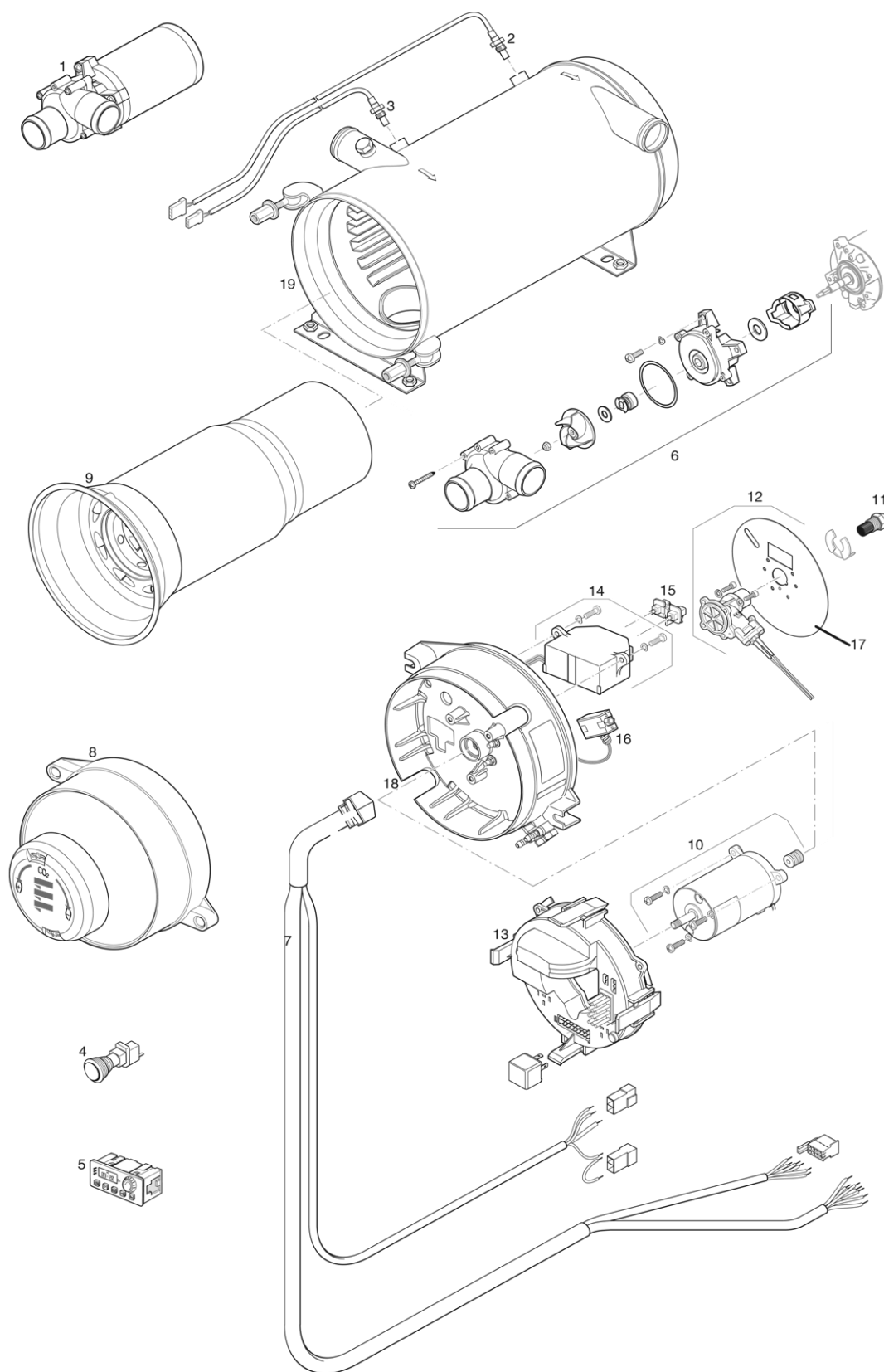


## HYDRONIC LII

### For Heater Model Numbers:

HYDRONIC L16	25 2486	
HYDRONIC L24	25 2487	
HYDRONIC L30	25 2488	25 2599
HYDRONIC L35	25 2489	

Diagram Reference Number	Part Description	Operation	Flat Rate Labor Code	Time Allowance (minutes)	Warranty Authorization Number (WA#) Required
<b>A. Troubleshoot</b>			<b>A</b>	<b>30</b>	
<b>B. Components Replaced with Heater Installed</b>					
1	Coolant Pump	Replace	HL-B200	10	
2	Overheat Sensor	Replace	HL-B255	10	
3	Temperature Sensor	Replace	HL-B305	10	
4	Push / Pull Toggle Switch	Replace	HL-B560	10	
5	7-Day Timer	Replace	HL-B565	15	
6	Spare Part Kit, Coolant Pump	Replace	HL-B225	20	
	Multi-Max	Replace	HL-B573	10	
7	Main Wire Harness	Repair	HL-B580	30	
7	Main Wire Harness	Replace	HL-B520	30	•
8	Combustion Air Inlet Hood	Replace	HL-B450	10	•
9	Internal Main Wire Harness	Replace	HL-B510	5	•
<b>C. Components Replaced with Heater Removed</b>			<b>HL-C000</b>	<b>60</b>	
10	Flame Tube	Replace	HL-C050	5	
11	Burner Motor	Replace	HL-C105	10	
12	Fuel Atomizer Nozzle	Replace	HL-C165	10	
13	Heat Element Nozzle	Replace	HL-C170	10	
14	Electronic Control Unit (ECU)	Replace	HL-C180	10	
15	Ignition Spark Generator	Replace	HL-C195	10	
16	Ignition Electrodes	Replace	HL-C335	10	
17	Fuel Solenoid Coil	Replace	HL-C501	15	
18	Baffle Plate / Heat Shield	Replace	HL-C155	5	
19	Fuel Pump Kit <sup>†</sup>	Replace	HL-C490	40	•
20	Heat Exchanger / Water Jacket	Replace	HL-C006	20	•
20	Heat Exchanger / Water Jacket	Clean	HL-C010	20	•
<b>D. Heater Function Test</b>			<b>D</b>	<b>30</b>	



## Tools and Equipment

Generally, standard shop tools are required for the installation and repair of Espar heaters. However, there are a few additional tools required for efficient troubleshooting and repair. All required tools are listed below.

### **Required Equipment for General Heater Repair**

- EDiTH diagnostic computer software and hardware
- Diagnostic unit
  - Previously named “Fault Code Retrieval Device”
  - Appropriate diagnostic wire adaptors
- Electrician’s crimping tool for non-insulated terminals
- Terminal removal tool, 1.6mm
- Terminal removal tool, 2.8mm
- Graduated cylinder, range of 0 to 50cm<sup>3</sup> or 0 to 50ml
- Torx drivers
- Metric Allen key wrenches
- Metric wrenches and / or sockets (4mm through 27mm)
- Fuel line cutter or knife
- Multi-meter

For complete and thorough service of Espar heaters, the following special tools and equipment are recommended in addition to those listed above.

### **Special Tools**

- Graduated cylinder, range of 0 to 500cm<sup>3</sup> (for HYDRONIC 16 / 24 / 30 / 35)
- Spark gapping gauge(s) for HYDRONIC 16 / 24 / 30 / 35
- Tachometer (RPM meter), optical or digital readout preferred
- Stop watch
- Thermometer, minimum range of 0°C to 300°C (32°F to 572°F)
- Carbon dioxide (CO<sub>2</sub>) gas analyzer, minimum range of 0 to 20%
- Smoke tester



## Computer Diagnostic Tool – EDiTH

The following overview is to help you understand the capability of different diagnostic hardware. Available are: Diagnostic Unit, EDiTH Basic and EDiTH Expert.

PRODUCT / FUNCTIONS	DIAGNOSTIC UNIT	EDiTH BASIC	EDiTH EXPERT
Read out the current error and the latest five errors	✓	✓	✓
Running diagnosis at installed heaters	✓	✓	
Turn on the heater directly by PC or Notebook		✓	
Visualization of the sequence of operations of the heater / control unit with display of the operating state and measured data of each components – components test		✓	
Individual test of components (independent of control unit) i.e. voltage of glow pin, voltage and speed of electric motor, fuel metering pump		✓	
Recognition if heater is high altitude adjustable		✓	
Display of general heater data		✓	✓
IPCU programming		✓	✓
Recognition if the control unit is high altitude adjustable			✓
Running diagnosis on control unit			✓
Test control unit under real performance conditions			✓

In addition to EDiTH Basic and Expert hardware, additional adapter cables are required for each type of heater installation. Type of adapters will depend on heater model and installation. For list of adaptors and their part numbers please refer to the current Espar Product Catalogue.

EDiTH software is updated regularly and the most recent version should be downloaded and installed from [www.espar.com/help](http://www.espar.com/help).

## APPENDIX A

### The Espar Limited Warranty

Espar Products, Inc. ("Espar") warrants its heaters (the "Products") to be free from defects in materials and workmanship, subject to the terms below.

Espar will, at its option, repair or replace any Products or any parts of a Product which are subject to warranty according to Espar's Warranty Manual (the "Warranted Parts") if such Products or Warranted Parts are proven defective in materials or workmanship during the relevant warranty period (the "Warranty Period") described below. This is Espar's sole obligation under this warranty.

This warranty extends only to the original owner (each an "Owner"). Unless Espar agrees in writing, this warranty cannot be transferred and it only applies to a Product in its original installation.

The Warranty Period is: (a) two (2) years or two thousand (2,000) operating hours (whichever comes first) for AIRTRONIC 2, AIRTRONIC 4, AIRTRONIC 5, B1LC Compact, B/D3LC Compact, HYDRONIC 4, HYDRONIC 5 and B/D5W heaters; or (b) two (2) years or one thousand five hundred (1,500) operating hours (whichever comes first) for HYDRONIC MII heaters; or (c) one (1) year or one thousand (1,000) operating hours (whichever comes first) for all other Espar heaters.

The Warranty Period begins on: (a) the date of sale of equipment containing the Product by an Original Equipment Manufacturer ("OEM") to the Owner; or (b) the date of installation for the Owner or the date of shipment by Espar, whichever is later, for all Products not sold to an Owner by an OEM.

To obtain service of a Product under this warranty, present the nearest Espar authorized and trained dealer (each an "Espar Dealer") with proof of purchase and for Products not sold by an OEM, the date of installation. To establish the date of purchase and date of installation of a Product, Owners should register for the Espar Warranty on-line at [www.espar.com](http://www.espar.com) within thirty (30) days of the installation or purchase of the Product. If the Owner has not registered online, the Owner can submit to the Espar Dealer other reasonable proof of the dates of purchase and for Products not sold by an OEM, of production installation. If the Owner cannot prove such dates, the Warranty Period will be deemed to have started when the Product was shipped by Espar.

The Espar Dealer will perform warranty service subject to this warranty and Espar's Warranty Manual. The Espar Dealer will also complete and submit a Warranty Claim to Espar. Espar will pay only Espar Dealers or installers to remove and re-install Products and Warranted Parts according to Espar's Warranty Manual. Espar shall not pay for any other labor costs.

Depending on where and how the Product was installed, the Owner may be required to return the Product to the Espar Dealer who originally installed the Product for warranty service. The cost of this return will be paid by the Owner. When servicing according to this warranty, Espar or an Espar Dealer may replace parts with new parts and change part specifications without notice provided such replacements or changes do not adversely affect the Product's performance.

This warranty does not cover damage or defects caused by: (a) installation; (b) service; (c) the use of replacement parts which are not genuine Espar parts; (d) use of a Product for other than its intended purpose; (e) use under other than normal conditions; (f) use contrary to Espar's instructions; (g) accident; (h) neglect; or (i) normal wear and tear on parts such as glow plugs, atomizer screens, fuel filters, fuses, lamp bulbs, intake and exhaust tubing and ducting.

THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESSED OR IMPLIED WARRANTIES. ESPAR'S LIABILITY FOR DAMAGES IS LIMITED TO THE COST OF REPLACING THE PRODUCT. ESPAR SHALL NOT BE LIABLE FOR SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES. THIS IS ESPAR'S ENTIRE WARRANTY. IT CAN ONLY BE CHANGED WITH THE EXPRESS WRITTEN CONSENT OF ESPAR.

THIS WARRANTY SHALL BE INTERPRETED AND GOVERNED BY THE LAWS OF THE PROVINCE OF ONTARIO, CANADA REGARDLESS OF WHERE THE PRODUCT IS SOLD OR INSTALLED. ANY LEGAL ACTION REGARDING THIS WARRANTY SHALL ONLY BE COMMENCED IN THE SUPERIOR COURT OF JUSTICE IN ONTARIO. THE PARTIES EXPRESSLY WAIVE ANY RIGHT TO A TRIAL BY JURY.

If you have any questions about this warranty, contact Espar's Warranty Manager at Espar Products, Inc., 6099A Vipond Drive, Mississauga, ON L5T 2B2. For our Warranty Manual, visit our website [www.espar.com](http://www.espar.com).

## APPENDIX B

### Sample Warranty Tag



A yellow warranty tag with a hole punch at the top. The text is as follows:

**Warranty Tag**

**To:** Espar Products, Inc.  
6099A Vipond Drive  
Mississauga, Ontario  
L5T 2B2 CANADA

**From:** (Dealer Stamp)

Dealer Claim No.: \_\_\_\_\_

Date: \_\_\_\_\_

Espar Part No.: \_\_\_\_\_

Part Description: \_\_\_\_\_

Hooker Name: \_\_\_\_\_

Hooker Part No.: \_\_\_\_\_

Serial No.: \_\_\_\_\_

Description of Defect: \_\_\_\_\_

Espar W/E#: \_\_\_\_\_ 5099454

## APPENDIX C

### Sample Warranty Shipping Label

From:	_____
	_____
	_____
Attention:	Quality Control Inspector Espar Products, Inc. 6099A Vipond Drive Mississauga, Ontario L5T 2B2 CANADA
Espar Reference No.	_____
	QSF-92

## APPENDIX D

### Warranty Notification Form

Warranty Claim #

Date

Serial #

Model #

**Warranty Claim is ON HOLD:** Additional information is required by Espar to process the warranty claim. Please submit the following information to Espar's Warranty Department within 10 business days from the date on this form.

- ☐ Installation documentation required to prove applicable warranty period (as warranty was not registered).
- ☐ Further technical information required to support repair.
- ☐ Other

Comments:

### **Adjustments were made to the submitted Warranty Claim:**

- ☐ Labor time requested is higher than the Flat Rate Labor Guide allows.
- ☐ Duplicate labor codes.
- ☐ Warranty authorization for excess time, labor or parts was not requested and/or authorized by Espar's Warranty Department.
- ☐ Parts returned for inspection were tested and found to be free of defects.

Comments:

### **Rejection of the Warranty Claim:**


- ☐ Heater warranty period has expired.
- ☐ Parts returned for inspection were tested and found to be not defective.
- ☐ Parts claimed are not covered under warranty.
- ☐ Inadequate parts return.
- ☐ Duplicate warranty claim submitted.
- ☐ Vehicle owner on Warranty Claim is not the original registered owner (warranty non-transferable).
- ☐ Requested information to support warranty claim was not received within 10 business days.
- ☐ Unauthorized WA# used for warranty claim that is not approved for this serial number.

Comments:

### **Acceptance of the Warranty Claim:**

- ☐ Warranty Claim has been approved.

## APPENDIX E

<b>Technician's Checklist</b>						
Espar Heater Systems						
<b>Work Order:</b> _____ <b>Heater Model:</b> _____						
<b>Serial Number:</b> _____ <b>Technician:</b> _____						
<b>ITEM CHECK</b>						
EDiTH Information	AF	F1	F2	F3	F4	F5
	Overall Heater Run Time:					Number of Starts:
Installation position on vehicle						
Fuel pump mounting position						
Fuel quantity test (before removal)						
Unit is boxed?	YES			NO		
<b>CHECK PERFORMED</b>						
<b>FOUND (YES / NO)</b>						
<b>ACTION TAKEN</b>						
<b>ELECTRICAL SYSTEM</b>						
Are connections tight and free of corrosion?						
Has proper gauge wiring been used for the length and amperage requirements?						
Have any fuses / circuit breakers been activated?						
Is power taken directly from batteries and ground to the batteries?						
<b>COOLANT FLOW / AIR FLOW SYSTEM</b>						
Are there any obstructions in the system?						
Is the heater system too large / small for the application?						
Has proper coolant hose size or ducting been used?						
<b>FUEL SYSTEM</b>						
Have proper diameter fuel lines been used?						
Have proper length fuel lines been used?						
Has a proper connection to the fuel supply been made?						
Is the fuel flowing freely (fuel is not gelled)?						
Are there restrictions in the fuel line?						
Is the fuel metering pump properly aligned?						
Is the fuel filter clogged?						

## APPENDIX F



### WARRANTY CLAIM APPEAL

#### Customer Information

Customer			
Address, City			
Province / State		Country	
Postal / Zip Code			
Phone / Fax			

#### Submitted by Information

Submitted by			
Email			
Date of Appeal	MM	DD	YY

#### Claim Information

Claim #		WE # (if given)	
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#### Reason for Appeal

Comments:

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**NOTE: Warranty appeal should be done within 30 days after receiving the outcome of the warranty claim.**

Espar Products, Inc.  
800.387.4800  
905.670.0960  
905.670.0728 Fax  
[www.espar.com](http://www.espar.com)

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